XII.

VOL. III. JANUARY, 1850. NO. IV.

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OF

AGRICULTURE, MANUFACTURES, MECHANIC ARTS, INTERNAL IMPROVEMENT, COMMERCE,

AND

GENERAL LITERATURE.

Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER & T. F. RISK,
EDITORS AND PROPRIETORS.

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ART. I.—EMIGRATION.

Were the relations between individuals, communities, and nations permanent and immutable political economy might be classed with the exact sciences; and a few simple rules, being committed to memory, would serve as guides until the end of time. But these relations being subject to continual changes, and each change being governed by laws peculiar to itself, any system, therefore, that can be devised by man must, in time, become inapplicable to the condition of the people for whom it was framed. And, hence, it is important that we should not only observe the current events, but, anticipate their coming, and shape our plans in reference to the changes which they are likely to produce.

No age, perhaps, since the dawn of civilization, has been so fruitful in events, affecting the social condition, as is the present: and no other part of the earth is likely to be so immediately, and so much affected by their occurrence as the valley of the Mississippi.

Among the many important subjects which present themselves for consideration there is none, perhaps, more interesting to this region than the continual increase of emigration from east to west. The extent of this movement at present, in many respects, has no parallel in history; and is calculated to affect, in some degree, the social condition, not of the United States only, but of Europe, and of Asia also.

The people of this country have been so long familiar with the settlement of new districts, and the consequences which have attended the hitherto gradual increase of population in newly settled territories, that, they are not yet awakened to the change which has taken place in the character of the emigrants. Formerly, the pioneer was a hunter. Clothed in skins, and equipped with butcher-knife, shot pouch, and deadly rifle, he pursued his solitary sports, in the deep recesses of the wilderness, "far from the busy haunts of men." Caring not for the society, and scorning the false allurements of civilization, his wants were few: and these being supplied, mostly, from the forest, he made but little progress in the civil arts. Next came the herdsman with his cattle,—seeking a natural pasture for their subsistence; but

the wants of his family requiring bread and a shelter, he reared the log cabin, and by slow degrees became a farmer. But, like his precursor, the hunter, he done but little to develop the resources of the country. But the solitude of the wilderness having been broken by these daring pioneers, they were followed, in time, by the more industrious farmer and the merchant; but the artizan, and the manufacturer lingered long in the rear; for it was their interest to remain behind so long as the inhabitants of the new districts continued to purchase their products. And thus the producers of raw material, and the producers of works of art became widely separated from each other.

But the hunter and the herdsman, no longer constitute distinct states of society in our new settlements. In times past these conditions were natural, and, to a certain extent necessary: the habits and pursuits of these hardy pioneers fitted them for the perils by which they were surrounded; and they may be regarded as the conquerors of the country from the savage tribes, and beasts of prey. Their privations and deeds of daring constitute the ground work of American romance; and the tradition of their lives, and perilous adventures will furnish the future historian with fabulous heroes, not less renowned, perhaps, than Hercules or Jason.

Gradually, but yet rapidly, a change has taken place in the process of settling new countries; especially in the more northern districts of the west. Instead of being preceded, as formerly, by the hunter and the herdsman, the substantial and intelligent agriculturist is the pioneer. Instead of the butcher-knife and rifle, worn for the destruction of wild beasts, and as a defence against the Indians, he goes forth armed with the implements of husbandry, to subdue the earth. Nor does he come alone: he brings with him the merchant and the artizan; the school master and the minister of religion are also in his ranks; and the foundations of civilization are laid deep and strong in the begining. The neat and comfortable dwelling, the farm, the garden and the orchard; the school house and the church; commerce, and the arts; all planted and established in a country of matchless fertility, grow up together. And scarcely are the foot prints of the savage obliterated from the soil ere the rail-way is projected; and the new settlers hold communion with their friends in distant portions of the land by the agency of electro-magnetism. This is no fancy sketch. It scarcely comes up to the truth, in respect to the settlement of Wisconsin and Iowa.

This improvement in the condition and character of the new settlements is destined to produce important changes in the commercial and political relations of the entire country; and a glance at the elements in operation will show that, even now, these changes are rapidly progressing. In the year 1830 the population of the United States was 12,866,020 including seamen &c. The Atlantic States, fifteen in number, and the District of Columbia, contained 9,147,461; and the new States and territories 3,707,089. In the year 1840 the entire population amounted to 17,069,453; a gain of 4,203,433. The increase in the 15 Atlantic States including the District of Columbia was 1,481,443, being about 16 per cent. While the increase in the new States and territories was 2,721,990, or more than 70 per cent. If the same rate of increase should have been sustained in the respective parts of the Union, since 1840 the census of the present

year will show a population in the Atlantic States of about 12,330,000; and in the new States and territories excepting Texas, California, Oregon and New Mexico, a population of about 10,880,000: and about 10,000,000 of this number will be in the basin of the Mississippi. But the emigration from Europe, from the year 1840 up to June next, will probably amount to 1,500,000; and it is fair to suppose that 1,000,000 of this foreign population has come to the west. The census, to be taken the present year, will show a populaton for all the States and territories of about 24,000,000; and from 10,000,000 to 11,000,000 will be found in the valley of the Mississippi. The natural increase in the population of the United States, for the next ten years, will be about 800,000 per annum; but, we shall, in all probability, receive 500,000 emigrants annually from Europe and Asia; if so, this will swell the number of population in 1860 to 37,000,000; and of this number about 20,000,000 will be located in this valley. By that time, our settlements will, in all probability, extend up the valley of the Missouri to its sources, in the Rocky mountains, where, as we are informed, is found one of the most beautiful and healthful regions on the continent. Now, on the supposition that our deductions should be true, or nearly so, it is evident that our commercial and political relations, in respect to the Atlantic States, will be materially different in the year 1860, from those at present existing. Our estimates of the foreign emigration may appear startling, and, perhaps, extravagant to some of our readers. But the following table, from the "Merchants' Magazine," showing the annual arrivals at New York, for 30 years, goes far to sustain our calculations; especially when we look at the causes operating in Europe, and reflect that the transportation of emigrants is becoming a regular branch of commerce.

ANNUAL ARRIVALS OF IMMIGRANTS AT THE PORT OF NEW YORK.

Years.	Passen's.	Years.	Passen's.	Years.	Passen's.
1819	9,442	1829	16,064	1839	48,152
1820	4,420	1830	30,224	1840	62,795
1821	4,452	1831	31,739	1841	57,337
1822	4,811	1832	48,589	1842	74,949
1823	4,999	1833	41,752	1843	46,302
1824	5,452	1834	48,110	1844	61,002
1825	8,779	1835	35,303	1845	82,960
1826	9,764	1836	60,441	1846	115,230
1827	22,000	1837	54,975	1847	166,110
1828	19,023	1838	25,681	1848	191,909
First 10 years	93,152	Second 10 years	392,878	Third 10 years	906,746
Total in 30 years					1,392,776

The author remarks, that, "the arrivals in 1849 will be over 350,000. The table gives the number at New York only. In the year 1847, the arrivals in the United States were over 250,000, or 90,000 more than in New York. In 1848 they were nearly 300,000, and this year may reach 500,000."*

It would seem that, in spite of all the theories on the subjects of population, and of commerce, the people of Europe, following their instincts, perhaps, more than their reason, have resolved to come to the country where the means of subsistence are abundant, rather than

*This estimate, we think is too large for the year 1849, but there can be little doubt that the number of foreign emigrants will reach 500,000 the present year.

to abide the contingencies of starvation in their native land. This has become one of the prominent ideas of the age, suggested by the principle of self-preservation, and being practicable, it is impossible to foresee the extent to which it will be carried out by the people of Europe and of Asia. The amount of labor, and of skill in the arts, which these emigrants bring into the country will soon produce results that few individuals have as yet contemplated. It will open our mineral wealth; facilitate the construction of internal improvements; furnish us with all the commodities of the handy craftsman; and, build up a home market for the products of the soil. It will establish a commercial system in the valley of the Mississippi, founded on natural principles; a system independent of, yet connected with every part of the world. And thirty years will not elapse before the most extensive distributing market, on this continent, will be found on the bank of the Mississippi. For, besides the agricultural, mineral, and manufactured products of this region, the sugar, molasses, coffee and other commodities of tropical climes; the commerce of the Pacific ocean; and a large portion of the European commerce, consumed in the valley of the Mississippi, will be sent here, directly, for distribution. Furthermore, there can scarcely be a doubt that the southern States will in time manufacture the greater part of the cotton crop; and instead of sending their fabrics to the eastern cities, they will be sent to the cities of the west, for distribution and consumption. And a similar policy will be adopted, to some extent, by the eastern manufacturer also. Even at the present time, almost the entire amount of the hardware and queensware, of European manufacture, sold and distributed in St. Louis, is imported directly by the dealers at this place: and, as the demand increases, the importation of other commodities will follow. For, if the American merchant should be slow to adopt this system, it will be established by foreign dealers who will readily perceive that by establishing houses here they will hold an advantage over those who purchase in New York, to the extent of the profits made by the merchant in that city. Indeed, Europeans are already looking to St. Louis for a market; and we understand that many agents, from both England and France, have visited here this season, soliciting orders.

The extraordinary growth of the commercial cities, on the Atlantic, for the last twenty years, has been sustained, principally, by Western and Southern commerce; but as the changes, in our population and commerce progress, this growth will be transfered to western cities, and be more rapid here than it has ever been there; because of the continual augmentation in the increase of our population and products.

Hitherto, the difficulties of procuring labor, and of finding a ready market, have been among the causes preventing the manufacturer and artizan from establishing themselves in the West; but we think if they will carefully examine the facts which we have stated, they will conclude that these objections will not be likely to exist in future. For in a country where the population is increasing at the rate of one million a year, as will shortly be the case, if not now, in this valley, the supply of labor and of consumers must both be abundant, beyond all precedent.

Such important changes in the social and commercial relations of a large portion of the inhabitants of the earth, are calculated to suggest a

variety of interesting inquiries. It is natural that an American by birth, should feel some apprehension that so large an infusion of foreign population will produce a deteriorating effect upon the American character: from this cause however, we think, there is nothing to fear. It is generally admitted, we believe, that the amalgamation of different families of the same race improves the physical development, and imparts energy to the mental faculties of the offspring. Actuated by motives similar to those which induced our own ancesters to emigrate, and coming from the same stock, it is natural that these emigrants should aim, in concert with ourselves, to attain one common end; and, if we act wisely in reference to these new constituents they may be regarded as calculated to energise and elevate our national character. By imbracing the offspring of so many families in our political institutions, the influence which they are destined to exert over the condition and policy of foreign nations will be greatly augmented: and the glory and renown of our own country exalted.

The adaptation of the people of different nations to employments and arts peculiar to themselves, will greatly diversify the pursuits of this country; and while this diversity of pursuits will tend to develop our own vast and varied resources, it will render us less dependent on foreign countries; and we shall become, not only the distributors, but, the producers and exporters also of many commodities which are now obtained from other lands.

From the most remote ages of history up to the present day, commerce, as the agent of civilization, has been progressing westward; but like political power, in one respect, it requires a seat of empire, whence its operations are controled throughout its dominions. But as civilization progressed, these imperial stations, falling too far in the rear, were abandoned for more convenient locations. Established on the eastern shore of the Mediterranean, the seat of commerce remained at Tyre for many ages before it was removed to Europe. Leaving Tyre, it crossed the continent of Europe, and is now established on one of its western islands, as if, waiting to embark for America; and, indeed, it may now be regarded as on its voyage hither. Its first station will doubtless be established on our eastern coast: but will it long remain there? We think not: for when the valley of the Mississippi shall have become densely inhabited, our eastern cities will be too remote from the great body of the population; and our internal, southern, and western (Asiatic) commerce, greatly preponderating over that between this valley and the eastern States, and of Europe, the seat of commerce for this continent, at least, will be transfered to, and permanently located on the bank of the Mississippi. Here, European and Asiatic commerce will meet for exchange and distribution: and the causes which have compelled the abandonment of the ancient commercial cities, will no longer exist; and we have good reason to hope that this continent will never be marked by the ruins of an extinct commerce, like those that indicate its route through other countries. Many ages have elapsed since Babylon, Palmyra, Tyre and Cartharge were left in ruins; and even the cites of some of these are becoming doubtful. Alexandria and Venice, though not fallen so low, have long been in a state of delapidation. Bruges and Antwerp, though not so renowned as the more ancient commercial stations, have also declined; and we predict that the time is not far distant when

the scepter of commerce will depart from London, its present imperial seat. But whether this great commercial emporium is destined to share the fate of the ancient commercial cities, can only be revealed by time. All these great cities were built by foreign commerce, aided, in some instances perhaps, by political power; and when the power which brought them into existence failed, they fell into a state of decay; for the resources of the surrounding countries were insufficient to sustain what foreign commerce had created. But such is not likely to be the case in respect of the great commercial cities that may rise up in this valley; for the immediate resources of the country, will of themselves be sufficient to sustain cities, in all respects as important perhaps, as were those of Asia and of Europe.

It is not our purpose to produce excitement in respect to the building of towns and cities in the west. The growth of commercial cities depends mainly upon the development of the resources of the countries in which they are located, and all attempts to force them beyond this point must sooner or later end in disappointment and disaster.

Our main object, in noticing the great influx of emigration, has been to call attention to the advantages which we think it affords to the establishment of manufactures in the valley of the Mississippi: we believe that the time is now ripe, or at least rapidly maturing, for a great movement in this behalf; and were our advantages understood and properly appreciated at home and abroad, many years would not elapse before this region would become as productive in works of art as it now is in the fruits of the soil.

ART. II.—LIFE AND TIMES OF GEN. GEO. R. CLARK.

EXPEDITION TO KASKASKIA.

We are living in the midst of internal peace, unequalled freedom and prosperity unsurpassed upon the earth. How have those glorious results been obtained in this ancient province of Louisiana? It successively enjoyed the government of France and Spain, in the hey-day of their power and greatness; and yet it is just forty-five years ago since it passed, in poverty and insignificance, into the hands of our countrymen? How has this wonderful social revolution been accomplished? Not by any series of battles, on this side of the Mississippi. Our contest with the Indians, on this side of the great Father of Western waters, have been comparatively insignificant. The power of the

red man was ready broken to our hands, by other efforts, at other times; and here we are, in the abundant enjoyment of the luxurious fruits growing from these efforts. Still the question recurs to every generous and curious spirit, how have our countrymen so wonderfully surpassed the efforts of two of the most powerful monarchies of Europe, directed for 130 years to the colonization of Louisiana? The causes of this mighty social problem are no doubt complex, we only undertake to state one; the military agency in producing this extraordinay progress. The prosperity and growing greatness of Missouri are to be traced in the first place, to the efforts of the pioneers on the eastern side of the Mississippi, here was the hive from which issued our swarm. And whom shall we select out of that brave and manly band, that have fought and won the great battle of western civilization against the savages of North America? I have chosen *George Rogers Clark.*

His life and times form a nucleus, around which most suitably gather the early circumstances of Western history, most likely to interest. It is to this era we must look for the essential conquest of Trans-Mississippi region, whose first foreign fruit is, the noble State, we live in. The time of this passage in Western history, in which Clark was the earliest and most distinguished chief, will reach from about 1774 to 1794, or from a little after the bloody battle of Point Pleasant, fought at the mouth of the Big Kenhawa, in 1774, to that gained by General Wayne, at the rapids of the Maumee, in 1794. What then, at the time indicated, was the condition of the Western country, limiting the term, at that time, to the Ohio valley? The white settlements had scarcely extended west of the present Pittsburgh, and indeed, east of it, there were fearful gaps of unsettled country. The first fort built, by our countrymen, on this side of the Alleghany (afterwards conquered by the French, and called Fort Du Quesne) was not till 1754, nor was it wrested from that nation, till 1758. True it is, there were many French villages of much earlier date, as at Detroit, Mackina, Vincennes, our own Cahokia and Kaskaskia, with a few scattering forts or stations, as they were termed, of our own countrymen. True, the hunters and traders had visited Kentucky, between 1767 and 1769. True it is, Finley and Daniel Boone, (may I not claim him as our own Missouri Boone as well as the great pioneer of Kentucky,) had borne back to their bold kindred and friends in North Carolina, the news of the fertile lands, the luxuriant cane-breaks, the abundant game of the West. Boone had told them, (I use his own language) "I have never seen the cattle more abundant in the settlements, than the deer in Kentucky." Still the vast section of country extending from the north-western lakes to the Cumberland mountains, and from the head of the Ohio, to the remotest west, in all the phases of the fluctuating term, was, ninety-one years ago, at the abandonment of Fort Du Quesne, by the French, essentially the dominion of the red man. This vast forest home of the Indian was dotted over, with villages of their numerous and war-like tribes. Their numbers on the eastern side of the Mississippi have been variously, and no doubt, loosely estimated, by the colonial writers; varying between 5,000 or 6,000 warriors, which, at the usual allowance of one-fifth for those of military age, would give a total Indian population of 25 or 30,000 for the region, which

has been mentioned. Indeed the testimony of all the missionaries and early hunters bears witness to the frightful solitudes, which the Indian country contained. But the tribes, which inhabited the western country were infinitely more formidable by their arts of war than their numbers would indicate.

Their ferocious customs of warfare, their undying thirst of vengeance upon an enemy, and profound subtlety, in prosecuting it, are still mournfully impressed on the memory of all the early immigrants to the western wilderness,—the great battle ground between the red and the white races of men. I will not dwell upon attrocities familiar even in this remote frontier of the great west. In the heart of the western country, south of the Ohio river, Kentucky, presented the first great body of fertile and level land, abounding in game and in salt licks. By some tacit agreement, this most smiling section of the west was reserved, by the tribes north of the Ohio, and south of the Cumberland rivers free from the occupation of either; though open to the hunting and war parties of both. It is a remarkable fact in Indian history, that so lovely a section of country, abounding in animals of chase, so much the delight, and even support of the Indian, should have been thus jealously reserved. Yet our oldest hunters found no Indian town within the limits of Kentucky; notwithstanding there are incontrovertible marks of ancient habitations, long prior to any visits of Europeans, or their descendants, to the western country of the United States. To Kentucky, thus bounteously endowed by the Creator, and so carefully reserved by the Indians, from any exclusive occupation by any one tribe, the western pioneers bent their restless, enterprising steps. I will not detain you, by recounting the various parties of hunters and settlers, some successful and others leaving their bones to bleach in the forest. Boonesborough, Harrodsburg and St. Asables, (the present Standford in Lincoln county, Kentucky) were established as stations or rude picketted forts, between 1774 and 1775. What their strength must have been, and what were their prospects of withstanding the united force of the wily and warlike tribes of Indians on the north and on the south, may be forcibly inferred from the fact that, in 1777, two years afterwards, the fighting men of Kentucky amounted, by a strict and easy enumeration, to 102. These were distributed as follows: 65 at Harrod, 22 at Boonesboro', and 15 at Standford or St. Asaphs.

Among the early adventurers to the west, thus exposed and thus sparsely occupied, was *George Rogers Clark.* Of the early years of Clark, little is known. His education, so far as books and artificial form enters into that comprehensive term, was necessarily limited, owing to the times, and the local deficiencies of his native county of Albemarle. Though that section of Virginia is now illustrated by the last and most honorable labors of the great Jefferson, in establishing the University of Virginia, his last legacy to his countrymen, —yet in 1753, the period of Clark's birth, and long afterwards, it was a destitute frontier. Clark, was, we learn, however, much devoted to the several branches of mathematics. He, like our illustrious Washingston, was early engaged in the manly and invigorating business of land surveying, under Col. Crawford, afterwards burned to death by the Indians. There seems a natural association, between feats in war and this business, so hazardous amid the privations and

dangers of Indian frontier. From this employment, Clark, in common with most of the gallant spirits of the time, withdrew, to engage in Dunmore's war against the north-western Indians, in 1774. He commanded a company in the right wing of the army employed in that inefficient campaign. I would detain you over the bold and gallant efforts of the troops comprising the left wing of this army under the command of Col. Lewis, at Point Pleasant, but I have too much before me to permit of even this digression, brilliant as it is, in the history of western riflemen. Suffice it to say that, it was a day's battle from dawn till dark. In 1775, Clark first visited Kentucky. Supposed to be quieted by Dunmore's treaty, at Camp Charlotte, on the Scioto, Kentucky was, at that day, the favorite theatre of romantic enterprise and gallant daring. Shall I be understood, when I say, it was the California and Oregon of those times, with a thousand fold their dangers and difficulties. He penetrated to Harrodsburg, which now had been re-occupied by Col. Harrod, after the battle at Point Pleasant. The appearance of Clark, says the late Humphrey Marshall, the primitive and graphic, though bitter historian of Kentucky, was well calculated to attract attention, it was rendered particularly agreeable by the manliness of his deportment, and the intelligence of his conversation; but above all, by the vivacity and boldness of spirit for enterprises and the determination he expressed of becoming an inhabitant of the country. Clark, after spending some time among the various stations, now returned to Virginia; but in 1776, again visited Kentucky, which he found much agitated, about the title set up by Henderson and company, of North Carolina, to all the lands between the Kentucky and the Tennessee rivers. I would not allude to this forgotten and obsolete land company, were it not connected with one of the most romantic incidents in the history of the west—I mean the first legislative body which ever assembled west of the Alleghany mountains. This was a convention, which met, upon the invitation of Henderson and his partners. This land company had, at the treaty of Wataga on Holston in Tennessee, in 1774, purchased of the Cherokees their title to the portion of Kentucky, which I have just mentioned. This assembly, composed of seventeen deputies, from all the settlements of Kentucky formally met together, under the shade of a large elm tree, at Boonesborough, in May 1775. This archetype of so many legislative bodies itself beset with formidable savages, in the midst of their forest homes, adopted and established some of the most substantial elements of free and sound government known to American law, for the government of the colony of Transylvania, as they termed their new home. This is one of the most curious incidents, in the annals of the west. It is the dawn of political government, which has since risen in the western country, to meridian splendor. It is a passage in western story, little known even in Kentucky; it is, indeed, a renewal, in the forests of western America, of the noble contract formed in 1620 on board the May Flower in the waters of the old Bay State. This small body of seventeen members, the embryo of a thousand legislative assembled met, in all this primiture simplicity, covered by no architecture but that of the great mechanic of the universe. Daniel Boone, his brother Squire, Calloway, the Todds, Levi and John, and Harrod, all

names of subsequent celebrity, were members of this primitive convention. At this assembly, a formal contract was entered into, between the people of the colony of Transylvania and the proprietors signed by both parties; it still stands in the journals of the convention. By this compact, the great principles of free government were distinctly expressed and recognized—the power of taxation, in the assembly, their election by the people,—the payment of the judges—their *independent* terms of office,—the trial by jury—the writ of habeas corpus—and even the election of their own treasurer, by the assembly. But this proprietary government notwithstanding all those constitutional formalities, was destined to a shortlived existence: neither the disturbances of an interregnum, nor the commotions of a revolution, which shook the continent to its centre, disturbed the vigilance of Virginia, from the government set up by Henderson and company on her western border. Other circumstances contributed their force to confirm the stern jealousy of the old unterrified commonwealth. The dissatisfaction of the pioneers with the *quit rents* demanded by the great land company, the interest of Virginians in the Virginia title to a western world. This conflict of title naturally agitated a people whose hearts were set as much on good land, as misers are on gold. In this excitement and anxiety about land titles and government, George Clark and a Gabriel Jones were formally elected members of the Virginia convention, then sitting at Williamsburg, to procure aid from Virginia and put an end to their perplexities.

Nor was their mission any holyday affair; no errand of modern diplomacy adorned and protected by the pride and power of a great country, with outfits and frigates. It was pursued *on foot* with rifle in hand, through an Indian wilderness of nearly 500 miles, which then separated the stations of the white man in Kentucky, from the settlements of Virginia. These had then barely passed the Blue ridge. On reaching western Virginia they found that the convention had adjourned; Clark, however, proceeded on his mission. Nor could the critical business of the backwoodsmen of Virginia have been deposited to able or more devoted hands. Patrick Henry was then at the head of the new State, the first of her republican chief magistrates. To this patrioic statesman, among the first in our republican school, Clark communicated the object of his journey—to procure aid and acknowledgement, for the backwoodsmen of Virginia. It met with his candid approbation, and the Governor, (who was himself sick,) gave Clark a letter to the executive council of the State. Upon the strength of this recommendation, our hero made application to this body for the seemingly pitiful assistance of 500 lbs. of gunpowder, to defend the stations of Kentucky. The council were disposed to *lend* this great military supply, provided Clark would give *security* for its return should the assembly require it, and would, moreover, bear the expense of its transportation to the western country. When this memorable order of council was delivered to Clark, he returned it, informing the council of his inability to comply with their onerous conditions, significantly adding that, a country which was not worth defending was not worth having; and regretting that the Kentuckians must seek assistance elsewhere, than from their native State. The result of this negociation was to give Clark an order for the gunpowder at Fort Pitt, then under the government of Virginia. The order

bears date 23d August 1776. It may gratify the curiosity of some, to know the value of the first subsidy of Virginia to her pioneers in the west, at $2,66 per lb. it amounted to $1,333. In this most opportune aid to a few forlorn stations in the lone wilderness, is found the first official communication between the vast dominion and her eldest daughter in the west. Yet, fraught with their very existence, as was this slight military aid to the backwoodsmen, the letter of Clark apprising them of the fact, in that day of imperfect and private communication, miscarried. But Clark's exertions did not rest here, on the re-assembly of the legislature of Virginia, in the fall of 1776, he applied to that body, and, notwithstanding a strenuous opposition obtained the establishment of the *county* of Kentucky with the identical limits which belong to the State of that name. This first political organization of the western country, independent of the illegal attempt of Henderson and company, to establish the colony of Transylvania, must be mainly placed to the credit of Clark; he incontrovertibly is to be ranked as the founder of Kentucky. It was now, the autumm of 1776, when Clark and Jones learned the painful fact that, the precious gunpowder so fondly obtained was still lying at Fort Pitt. They determined to return home and take the gunpowder with them. Fort Pitt was now surrounded by groups of suspicious and discontented Indians, partly provoked by the intrusion of our people into their favorite hunting grounds in Kentucky, and partly instigated against Americans by British hostility. Our commissioners lost no time in procuring a boat and men to transport the gunpowder to Limestone, the present Maysville in Kentucky. After toils and vigils scarcely capable of being appreciated in these soft and piping times of peace, followed by Indians the whole way, they succeeded in burying the gunpowder at the banks of Limestone creek, from whence, it was afterwards escorted by another party in safety to Harrodsburg. The next project of Clark was on a grander scale—to lead an expedition against the British forts in the western country at Detroit, Vincennes and Kaskaskia. These he saw, were the sources of Indian devastation in the west. The ravages which were terrifically brought home to every log cabin on the frontier, were stimulated and fed, by the ammunition, arms and clothing obtained by the Indians from the general enemy, then in possession of these posts. On the 10th of December 1777, Clark opened the plan of his Illinois campaign, to Governor Henry. Several companies were held by the governor with the influential men of the State, the result was, a full approval of the expedition, by the Executive of Virginia, and a pledge subscribed by such bright patriots, as George Wythe, George Mason and Thomas Jefferson, that they would exert their influence with the Virginia legislature to obtain a bounty of 300 acres of land for every private soldier engaged in the expedition. On the 2d of January 1778, Clark received a commission of Lieutenant Colonel with two sets of instructions, one public directing him to Kentucky for its defence, the other confidential, ordering an attack upon Kaskaskia. It was late in the season when Clark left Fort Pitt with three companies, with a considerable number of families and private adventurers, expecting a reinforcement from Kentucky. The voyage down the Ohio was prosecuted, as it demanded, with profound caution. When arrived at the Falls of Ohio, Clark landed his men for refreshment, on *Corn Island*,

opposite the present city of Louisville, where he built a rude fort, the first germ of that flourishing city. At this point, where he expected to receive a *battalion*, Clark obtained but one company. The real destination of the expedition was now diclosed to the men; who, most honorably to their gallant and patriotic spirit (the same heroic spirit which has animated their descendants to accompany the banners of the republic to Francisco and Santa Fé) was unanimously concurred in. There was a party of about 200 backwoodsmen, (the exact number is no where stated) composing four companies with scarcely any other resources than their rifles and their own brave hearts, it was about to make its way through a country of hostile Indians, when in their unbroken strength, from the Falls of Ohio to Kaskaskia; not a post to retreat upon in case of desertion but on this side of the Mississippi, then belonging to Spain; of suspicious and doubtful amity to the United States; no reinforcements, but such as they might win by their arms; and at the end of the route, they had to encounter forts amidst hostile settlements furnished, as they supposed, with everything which British opulence might have provided. This is an unvarnished statement of some of the difficulties attending this expedition. Such as they were, our gallant band, after passing a day of rejoicing with their fellow soldiers, at the Falls, who were about to return, upon a service of scarcely inferior dangers, to defend the interior stations of Kentucky, cheerfully set off to meet all the dangers and privations of this gallant expedition. It was now the 24th of June 1778, when the expedition started, all the baggage was left at the fort on Corn Island, except what was necessary to equip the party in the barest backwoods manner. At first Colonel Clark, as we must now call him, had meditated a blow at St. Vincent's, or Fort Sackville on the Wabash, the site of the present Vincennes; but on reviewing his little band, its paucity forcibly induced him to prosecute his original design against Kaskaskia. Behold then our gallant countrymen once more afloat in the Ohio trusting implicitly to the genius of their enterprising chief and their own brave hearts. On his way down the river, Clark most fortunately received a letter from Col. Campbell, of Fort Pitt, announcing the French alliance of 1778 with the United States, which subsequent events proved of the utmost importance to the American arms. At the mouth of the Tennessee, Clark met with some American hunters from Kaskaskia, who afforded him recent information respecting the condition of that post, which led to the conclusion that could he surprise it before the inhabitants were apprised of his intentions, his prospects of success were highly flattering. His informers, in proof of their sincerity, offered to pilot Clark's party to the British post. The boats now dropped down a short distance below Fort Massac; they were here concealed along the shore and the expedition started through the woods and swamps of Illinois, where, in hunter's phrase, there was not a stick amiss, towards the ancient French village of Kaskaskia, then the chief place in this section of the country. The march was attended with little that was unusual in these times of hardihood and privation, beyond the ordinary difficulties of a march, through a thick and sometimes swampy forest. Game and water, it ought to be added, were scarce.

On the evening of the 4th of July 1778, the Virginia riflemen overcoming all obstacles, arrived within a few miles of the town, undiscov-

ered. The party halted until dark, when a sufficient number of boats having been obtained for crossing the Kaskaskia river, two detachments passed over, while a third, under the Col. in person, proceeded against the fort. This was situated on the side opposite to the town, and was entered, by a postern gate, which was found open, and taken possession of, without striking a blow, or seeing a soldier of the enemy. The town, then consisting of 250 houses was surrounded and every avenue guarded; to prevent the communication of intelligence the governor Rocheblave was surprised in his bed, and, "in about two hours, says Clark, the town was disarmed without shedding one drop of blood." It was now learned that there was a considerable body of Indians in the neighborhood of Cahokia; but there were no regular British troops nearer than Vincennes and Detroit. After sometime M. Gibault the excellent Roman Catholic priest of Kaskaskia, accompanied by five or six of the grave and reverend seignors of the village, obtained permission to wait on Col. Clark. Shocked as the citizens of this secluded village had felt, by the capture of their town (and it could not have been more sudden if their captors had descended from the clouds) and by such an enemy as their imaginations painted our countrymen, the French party was still more shocked, when they entered Clark's quarters, at his appearance and that of his officers. Their clothes soiled and torn, by their river trip and long march through the woods, their other clothing left at Corn island, the appearance of this gallant band was anything, but civilized. It was frightful and savage, so Clark admits, to any eyes, and how much more so, to this French deputation, may well be conceived, by those, who know the refinement and delicacy of the ancient French, a few of whom still survive, to grace the principal city of our State. The Kaskaskia gentlemen were horror struck; it was sometime after they had entered, before they could summon fortitude to speak; and not then, till their business was demanded. They asked for the commander, so completely had this backwoods expedition confounded the distinctions of rank. Clark was pointed out to them, the priest then said, that the inhabitants of Kaskaskia expected to be separated never to meet again, and they, therefore, through him, solicited leave to assemble at their church to take leave of one another. It was granted in brief terms. The houses of the village were immediately deserted by all, who could leave them, to meet at the church, in order so they imagined, to bid each other a long farewell. It was, as they thought, preparatory to breaking up their ancient community. The assembly lasted a considerable time, when at length, another deputation waited on Col. Clark and expressed, in the name of the villagers, their thanks for the indulgence they had received; and begged to address their conqueror, on a subject dearer to them than any other; they were sensible that their present condition was the fate of war, and they could submit to the loss of property but they solicited that they might not be separated from their wives and children; and they begged that some clothes and provisions might be allowed for their support. Clark had now wound up the terrors of the villagers to the desired height, and he determined to try the influence which the lenity he had all along intended to exercise, might now produce from a sudden contrast of feeling. It was an innocent stratagem to augment the force of his slender corps. For this purpose, Clark abruptly

asked the deputies—"Do you take us for savages? I am almost certain you do, from your language. Do you think Americans intend to strike women and children and to take the bread out of their mouths? My countrymen, said he, disdain to make war on helpless innocence: it was to prevent Indian butcheries of our wives and children, that we have penetrated into the remote stronghold of British and Indian barbarity; and not to obtain despicable plunder. And now, to prove my sincerity, said the Col., you will please to inform your fellow citizens, that I am quite convinced, from what I have learned since my arrival among you, that you have been misinformed and prejudiced against us, by the British officers. Your friends, who have been placed in confinement, shall be immediately released. The rebound of feeling among the people when they heard of the magnanimous intentions of Clark, verified his sagacious anticipations. In a few moments the mortal dejection of the village was converted into extravagant joy; the bells were set to ringing and the church was crowded with worshippers, thanking God for their deliverance from the horrors which they had fearfully expected from the *Long Knife*, as the Indians had taught them to call the Virginians. Cahokia, then a flourishing village, next attracted the attention of Clark; he determined to attempt its capture, in the same manner, in which he had gained Kaskaskia. Suffice it to say, that it fully succeeded, assisted by the good offices of the people of Kaskaskia with their friends and relations in Cahokia. A company of French volunteers accompanied the American party, under Major Bowman. On the 6th of July, Clark completed with unparalleled facility the military occupation of Western Illinois, or as the French called it, Les Illinois. In this change of dominion, let it never be forgotten that the ancient French most cordially co-operated with our countrymen in effecting it; aided, no doubt, by the alliance, between France and the United States, and that without their concurrence the retention of the country amidst hords of ferocious savages, by so small a body of Americans would have been impossible. But, though Col. Clark had now met with a success so much beyond his means; and almost beyond his expectations; although the French villages were entirely subjected and even attached to the American government, yet his uneasiness was great, at the critical delicacy of his situation. A close understanding was cultivated with the Spanish government, on this side of the Mississippi; every effort exerted to counteract the extended influence of the British over the Indians, whom they almost held at command. The bloody belt and hatchet, to use the metaphorical language of the Indian, had been distributed by the British, from Vincennes and Detroit to the Ohio and the Mississippi. The former port was particularly dangerous to Clark, from its strength and influence over the Indians, and proximity to himself on the Mississippi. It was, likewise, in the hands of very warlike tribes. "St. Vincents," says our hero, "was never out of my mind." I will not dwell upon a mission of M. Gibault and Captain Helm to get peaceable possession of this formidable point. Yet, it completly succeeded for a time, and the French inhabitants voluntarily placed themselves under the government of Virginia. But this possession did not last long. On the 29th of January, 1779, Col. Vigo, an Italian merchant of Vincennes, and said to be a partner with the Spanish govenor of St. Louis, arrived at Kaskaskia,

and brought the first intelligence that Vincennes was again occupied by the British—that Col. Hamilton, with an expedition from Detroit, had again reduced the post under the British arms. There is an anecdote connected with the surrender of Vincennes to Hamilton by Capt. Helm, which may illustrate the character of the followers of Clark. They were indeed the very elite of the western country, the hardy sons of hardy pioneers—the genuine yeomanry of the west. When Col. Hamilton entered Vincennes, there were but two Americans in the fort, at that place—Capt. Helm and one Henry. The latter had charge of a loaded cannon which was placed in the open gate of the fort, while Helm stood by, with a lighted match in his hand. So soon, as Hamilton appeared at the head of his troops within convenient hailing distance, Helm cried out in a loud voice "halt." This stopped the movement of the British; and a surrender of the fort is demanded. Helm swears "no man shall enter here, until I know the terms," "you shall have the honors of war," replies the British officer; and the fort was then surrendered with its garrison of *one* officer and *one* private. Hamilton was now in possession of this important point on the Wabash; but deferred operations against Clark, until the next spring. He, at that time, contemplated a grand campaign which Clark thus communicates to Gov. Jefferson. "After taking Kaskaskia," of which he entertained no doubt, "he was to be joined by 200 Indians from Mackinac and 500 northern ones with this force united to his own, this British officer was to penetrate up the Ohio to Fort Pitt, sweeping the stations of Kentucky in his way with light brass cannon taken for the purpose. So flashed with the confidence of conquest was the British commander, that he made no doubt of breaking up all west of Augusta, as the western frontier of Virginia was then called. But Clark had learned from Vigo that the British had but 80 of their own men at Vincennes with three small cannon and some swivals mounted. With a promptitude inspired by his genius for war, Clark, like the great Hannibal, when John Randolph (no mean authority) always considered his most appropriate original, determined to carry the war into the enemy's country—in other words to march against Hamilton at Vincennes. Clark afterwards observed "I know if I did not take him, he would take me." Nor was it the practice of our hero to postpone the execution of his plans, like the British officer till spring. A Mississippi boat, a keel boat most likely, if so good, was immediately fitted out as a galley, mounting two four pounders and six swivals, obtained from the enemy's fort at Kaskaskia.—This, he placed under the command of Capt. Rogers with a company of 46 men. This officer had orders to descend the Mississippi from Kaskaskia, ascend the Ohio as far as the mouth of the Wabash and proceed up that stream as far as White river, suffer nothing to pass her and wait there for further orders from Clark in person. The galley was accordingly dispatched on its bold errand the first of naval operations in the west; and while we leave it to prosecute its perilous enterprise, let us attend to another part of that expedition. When the enterprise against Vincennes was determined on, the French inhabitants of Kaskaskia and Cahokia, with the military spirit, which ever characterized their native country, raised two companies, commanded by Capt. McCarty and Charleville; these, added to Clark's original force diminished, by a detachment to the Falls of Ohio under Colonel Linn, amounted to no more than 170 men.

ART.—III. SCHOOL OF MINES.

We beg to acknowledge our obligations to Dr. King, for the following copy of a letter, addressed by him to our representatives in Congress, on the subject of an appropriation of land for the establishment and support of a "SCHOOL OF MINES;" and we join with the writer in earnestly urging upon Congress the importance of the measure.

EDITORS.

To the Honorable JAMES B. BOWLIN, W. V. N. BAY, JAMES S. GREEN, W. P. HALL *and* J. S. PHELPS, *Representatives of the people of the State of Missouri in the Congress of the United States.*

GENTLEMEN:—I had the honor yesterday of forwarding each of you by mail two numbers of the "Western Journal," containing articles advocating the memorial of the last session of the legislature of this State to the Congress of the United States, for an appropriation of public lands for a geological survey. I respectfully recommend these articles to your consideration and trust they will be found to contain facts and arguments which may be useful when the memorial is laid before the House of Representatives. To the people of Missouri this survey is a matter of the deepest importance, for in climate, soil, mineral productions, commercial and manufacturing facilities, nature has dealt with us in the most liberal manner, and our resources need but to be known, to be properly appreciated.

Whilst, however, Missouri will be specially benefited, I have endeavored to show, and I hope successfully, that the general government, as well as the people of the other States, have an interest in the survey sufficient to justify us in asking this appropriation. I have not allowed myself to look upon this memorial as an application for eleemosynary favor. I cannot view it as such, whilst the government of the United States claim a proprietary claim to so large a portion of our territory. After showing the importance of this survey in a national point of view, I have exhibited the impossibility of making it without embracing the public lands: the illiberality of refusing co-operation when both parties are alike benefited; the unreasonableness of expecting the people of Missouri to incur the entire expense, and the fallaciousness of such an expectation; and finally the injustice of withholding from us the assistance that has been given to other States for similar purposes. No grounds, even for a plausible argument against the appropriation, presents itself to my mind, and I cannot doubt, that with the able support you are so capable of giving the memorial, that Congress will readily grant it.

There is one subject in the memorial, gentlemen, to which, as I have scarcely referred in my articles, I would now respectfully call your attention: that is, the proposition to establish *a School of Mines and Agriculture.*

The mining interests of the United States have never received the attention from the general government, nor perhaps, from any of the State governments that they deserve. Since the days of Mr. Jefferson their importance in a national point of view has been astonishingly

overlooked, and now we find ourselves suddenly possessed of the most extended and valuable mineral possession of any nation amongst civilized people, as unprepared to manage or direct operations in them as the wild Indians that recently roamed over them. This neglect is the more remarkable as we have had the example of all the leading governments of Europe on similar subjects before us, and even before the acquisition of New Mexico and California we were scarcely inferior to any one of them in our mineral resources. When the territory of Louisiana became a part of the United States it is quite possible Mr. Jefferson contemplated the organization of some system, for the management and government of our mines, similar to the system adopted by the continental governments of Europe. A statesman of his enlarged views could not avoid seeing the importance of their development, and the necessity of placing them beyond injury from ignorance or the spirit of speculation. The act of 1807, reserving the lead mines and salines from sale indicates this. The fundamental principle of the "*droit regalien* (*Berg-regel* Germ.) was laid down by this act. But if ever a school of mines and regular corps of mining engineers, or any other system for teaching the arts of mining and metallurgy, and securing a proper administration of the mining affairs of the country was contemplated, it seems to have been entirely abandoned; the government reserving to itself and exercising only the most odious of its prerogatives, the privilege of a tax-gatherer. Missouri, after having waited patiently for more than twenty years, finding that nothing more was to be expected from the general government, obtained the passage of the act of March the 3d 1829, by which the mineral lands of this State, like other public lands became subject to private entry. This act annulled, or ought to have annulled all hopes that the government at Washington would take the course Mr. Jefferson seems to have had in view. By this act she abandoned the control over what was then, if it be not even now, one of her richest mineral possessions, and it is only remarkable after this, that she yielded with such apparently slow reluctance her right over the others. There is nothing left now but the recently acquired territories of New Mexico and California.

The latter a magnificent possession, where

"the glorious sun
"Stays in his course, and plays the alchemist;
"Turning, with splendor of his precious eye,
"The meagre cloddy earth to glittering gold:"*

It is extremely probable that the action of our government in this matter has been influenced by the example of Great Britain, as she is the only one of the several leading powers of Europe, that has not retained in some official form, a control over, or a supervision of her mining interests. The only one in which there is not a national school of mines to teach those upon whom the trust of directing or superintending this important interest may devolve, that knowledge which is absolutely necessary for rendering them competent to discharge their duties. If such was the case we were very unfortunate in the selection of a monitor. It is not necessary to enquire here why she has not such a control. The history of the organization of

*(King John, Act III. Scene I.)

the Government tells that. But the great error lay in supposing that the high position she occupies in mining and metallurgic operations was a proof that these pursuits, like agricultural, manufacturing and commercial ones, should be left free from all control of or connection with the government. This argument is fallacious in its foundation. A mine is different from a farm, and has no similitude to a manufacturing or commercial establishment. A farm may be worked for an indefinite period of time, and yet, if properly cultivated, be as productive as when first opened. A manufactory may go on for years increasing its production without the fear of exhausting the supply of its raw material, if it be of a nature capable of reproduction. A commercial establishment may grow up from the smallest beginning until it spreads its operation to every quarter of the globe without lessening or materially affecting trade in general, whilst it adds immensely to the stock or the capital of the parties engaged. Not so with a mine. It has no expansive capacity, no reproductive quality. Every pound of ore, metal or mineral taken from it, is so much towards its exhaustion. Every day's work done on it not only shortens its existence, but generally increases to a certain extent the cost of that which will be produced by the next. The working of a mine is like the prodigality of the spend-thrift, incessantly lessening the treasure on which it operates. This is the important distinction between the mining and all other great pursuits of a country, and it is this difference that justifies the government in whose dominions it is conducted in seeing that it is carried on in the most prudent, economical, and intelligent manner. There may be minerals, as for instance, coal and iron in several countries, so abundant, that the wastefulness or ignorance of ages can have but little effect in lessening the original supply. And yet there are other countries in which these very articles may exist to so limited an extent and under such unfavorable circumstances that every care must be taken to prevent waste and to cheapen the price of production, for the public good. The first is the case with Great Britain, the second with most of the continental powers of Europe. Great Britain, may well, therefore, trust the management of her mines particularly of iron, coal and lead to those interested in them; for the time is very remote when their exhaustion is to be apprehended; and more especially as she has a class of population whose long practical experience enable them to work these mines in the most advantageous manner. All attempts at monopoly under such circumstances would be absurd, and the people at large are thus protected from imposition, by competition, without the necessity of official interference. This is rarely the case in the territories of the continental governments. In many of these there are extensive mines giving employment to a large and industrious population, that would soon be ruined and abandoned, and consequently those dependent upon them rendered destitute, if it were not for the watchfulness of the government and the extreme prudence with which they are managed.

It is not because our mineral resources, especially coal and iron, and perhaps, lead and copper, do not equal those of Great Britain, that we committed an error in adopting her mining policy; but because we had not, and have not yet the mining population, the peculiar class of people that she has, that is necessary to render such a policy advisable. Nor unless we adopt some means of instructing them better than we now

possess, can we have such a population for some generations to come, composed of our own citizens.

These are the considerations that would have justified the government of the United States in the establishment of a school of mines and the organization of a corps of Engineers. This would have been a true protective policy, at least with regard to all our mineral productions. A policy that we think would not have been objected to, by any enlightened statesmen in the country. If, with this, the government had retained its proprietary right over the mines or disposed of them with a condition that they should be worked under the supervision of its officers, we should, at this time, be in a very different condition from what we are, in respect to our mining operations.

The opinion is common, and, no doubt, has had its influence, that, as the English are the best practical miners, and Great Britain the most productive mining country of Europe, that, therefore, the science of mining and metallurgy is better known there than elsewhere. As strange as it may appear, the reverse of this is the fact. What is known there is well known and well applied. But it is local knowledge, the result of daily, yearly experience, under the same circumstances and in the same mines, and often in the same minerals, by men whose business was not to philosophise, but to dig and pick. The literature of a country is the best means of determining the amount of intellect that may be devoted to any particular pursuit in it. This standard shows us at once the relative position Great Britain bears to other European nations. Whilst the press of France, Germany, and other continental powers is constantly issuing works of the highest merit on mining and metallurgy, England presents us nothing better than an article compiled for some popular Dictionary or Encyclopedia, and even these "few and far between." She is even indebted to foreigners for the best description of what she is doing. We look in vain in an English catalogue for such works as "The Voyage Metellurgique," "Traite des Essais," "De la Richesse Minerale," &c. With this explanation we can readily see the cause of the disastrous results that have attended English mining operations in other countries. The new circumstances under which they had to be conducted required something more than mere practical experience. They required the application of the most profound principles of the science. But an Englishman learns with reluctance anything new, out of England. He is, moreover, the most inelastic of all civilized beings. He seeks to make everything bend to him and his pre-existant opinions. When this cannot be done, one or the other generally *breaks* and the history of the mining operations of South America and Mexico shows that it is, by far most frequently, the Englishman.

The history of these unfortunate results on our own continent, should teach us the necessity of something more than even the best practical knowledge for conducting mining properly in a new country like ours, and make us feel how profoundly deficient we are in every thing relating to the subject. We are deficient—it is a humiliating confession, but the knowledge of it is the first step towards improvement—we are deficient in scientific and practical knowledge. We are children with an inheritance whose value is beyond calculation, if we will but learn how to use it. But where is the school? No where yet, in our own country. The government of the United

States declines to establish one, and there is no authority to whom we can look but the State governments.

There is no State of the Union that presents so many circumstances favorable to the establishment of such a school as Missouri. Its central position and the increasing facilities of travel render it easy of access to all. Its geological character is extremely interesting. Its minerals numerous, rare and valuable. Its smelting establishments rapidly increasing; the whole offering, it is believed, more advantages than can be found in any other State, for the study of mining and metallurgy successfully and practically. Such a school would not confine its benefits to Missouri; whilst it would prepare and furnish those persons now so much needed to take charge of and direct our mining and smelting affairs, it would furnish the country at large, with men in whose capacity confidence could be placed. Our mines, furnaces, and manufactures, would be managed by men whose feelings, habits and interests, would be congenial to the people. The States and Territories would be supplied with officers upon whom they could safely rely to fulfil the duties which the development of their resources might require. And the United States government itself would know where to look for and find citizens qualified in the highest degree for any future geological surveys, or other scientific explorations.

This school, though located in, and under the direction of the State of Missouri, will, therefore, be national in its benefits and purposes. If the Congress of the United States were to assume yet, the responsibility of establishing it under its own direction, there would be no place so appropriate for its location as Missouri: *the Saxony of the Union.* If, on the contrary, Congress confides it to Missouri, giving her that assistance which the importance of the subject demands, the result will be the same to the great interests of the country.

Such an institution must and will be established, somewhere in the United States. It is necessary. Already one of the literary institutions of New England has taken the initiative by the establishment of a Chair of Metallurgy, which has been liberally endowed by a wealthy citizen, late a member of the House of Representatives, and now our Minister to the Court of St. James. This is an indication of public sentiment, and an intelligent appreciation of public want. The eye of the Boston merchant, though far removed from this region, most deeply interested, saw it, and, availing himself of it, has added to his reputation and that of his enterprising fellow-citizens, for liberality and public spirit. He is deserving of the thanks of the people, but a matter of such great national importance should not be left to the patronage of any private individual. It is properly a subject belonging to the United States. But if she will not take hold of it, then should it be entrusted to that State government most deeply interested in it, and which presents the greatest advantages for its establishment.

I am so deeply impressed with the importance of this school, that I cannot close this without recommending an effort to be made to increase the appropriation asked for by the Memorial for one Township of land more in each land office district; if in your judgment it can be done without endangering the original proposition. I would have that Township specially located and the proceeds appropriated for the establishment and maintenance of the school only, with the provision, if necessary, that its teaching should be free to every citizen of

the Union. With such a school, Missouri would soon take the rank amongst the great mining countries of the world she ought to occupy, and her prosperity be immeasurably increased.

As this is a subject to which I have given much attention, and feel a deep interest in the development of the resources of our State, I trust you will excuse the liberty I take in addressing you this lengthy communication. I have the honor to be

Gentlemen,

Your fellow-citizen, &c. &c.,

H. KING.

ART. IV.—PHONOGRAPHY.

Our acquaintance with the subject of Phonography is too limited to enable us to speak of its merits, or of its claims to public attention. That the art is of practical utility, in some respects, there is no doubt; but whether it can be applied to the purposes of facilitating the usual branches of education is a fact which, we think, remains to be established. If, however, as the author supposes, it is calculated to shorten the time, and consequently lessen the cost, of acquiring education, then Phonography assumes an importance, equal, perhaps, to any of the discoveries, or improvements of the age. We hope that those who have made themselves acquainted with the subject will persevere in their labors until a fair experiment shall have been made. If they succeed to the extent anticipated by the writer they will be entitled to the gratitude of mankind. EDITORS.

"EDUCATION," says Reed, "is the act of bringing up; instruction; formation of manners." It is the most distinguishing characteristic of mankind. It places man above the fowls of the air and the beasts of the forest—it is this that crowns him with honor and glory—that renders him but a little lower than the angels. That branch of education of which we are about to speak, contributes, we think, to this distinction in a very particular manner; and we also fully believe that its principles have only to be made known to be universally approved and adopted.

Everybody who has learned the English language is aware that there is no uniform method of representing distinctly the sound of the voice uttered in speaking: no correct guide to spelling: as the sound of the same letter and combination of letters, varies in different words. Spelling, with us, therefore, is a mere effort of memory, without method, science, or art; or, if it does partake in any degree of the latter it must surely be very imperfectly. It is asserted by

Alexander John Ellis, A. B. Fellow of the Cambridge (England) Philosophical Society, that "no one ever knows with certainty how to spell a word which he has only heard, and has not yet seen, and that no one ever knows with certainty how to pronounce a word which he has only seen, and never heard. If this assertion of Mr. Ellis is correct, and for our part we have not the least inclination to call it in question, what an amount of labor has to be performed, before one is master of spelling and pronouncing the English language? Every word has to be pronounced in the hearing of the pupil; until the distinct sound of each is fixed in his memory, before he can be said to be master of the art of pronunciation; and after this labor has been accomplished—after *eighty thousand* words have been committed to memory, the task is only half accomplished: orthography has to be learned, and to do this, the dictionary, from "Aaronic" till "Zootamy," must also be committed to memory; and after all this labor has been gone through with, ten to one but some words escape the recollection. And to what purpose is all this? Simply to learn the absurdities of an absurd, incomprehensible orthography. If the time spent in learning to pronounce and spell the English, was spent in acquiring the rudiments of the arts and sciences, schools and colleges would turn out fewer "educated" dunces; parents would have less cause to mourn over the slow progress of their children; fewer complaints against teachers; education would be what it ought to be, "knowledge, instruction;" and people generally would not be so profoundly ignorant as at present. It could not then in truth be said that—

> "wandering oft, with brute unconscious gaze,
> Man marks not **** ***** *** the mighty hand
> That, ever busy, wheels the silent spheres."

But it may be asked, how is man to become acquainted with the arts and sciences; or how acquire knowledge without learning the orthography of his mother tongue? While there was nothing better to substitute it was no doubt necessary for an English scholar to learn English orthography; but a system has been discovered possessing superior advantages—a system which discards the irregularities of spelling—a system, by which no difficulty can be experienced in spelling any word which can be pronounced with accuracy; and by which no doubt will be experienced as to the pronunciation of any word which meets the eye—a system, too, so simple, that a child eight or nine years old can learn to read in a week—and that system is

PHONOGRAPHY.

Phonography is based upon the science of sound. The name is composed of two Greek words. *Phone*, *sound*, or *voice*; and *grapho*, to *write*, signifying merely the writing of sounds, or writing according to sound.

In the English language there are forty-two sounds, that is, including the compound sounds of *ch*, *dj*; *i*, *oi*, *ou*, and *u*; and in the English language there are only twenty-six letters, or signs to represent those sounds: hence it is impossible that the same letter can uniformly represent the same sound, and hence arises the endless variations which the letters of the English alphabet are made to undergo, Phonography, by substituting a sign to represent each distinct sound, avoids this confusion. Every sound is invariably represented by the

same sign, or letter; and every sign invariably represents the same sound. All that is required of the learner of Phonography, therefore, in order to become a perfect speller, is to become familiar with the character, by which the different sounds are represented; or, in other words, to learn the Phonographic Alphabet: and then, on hearing a word pronounced, to analyze it into the different simple sounds of which it is composed. Every word is compounded of one or more simple sounds; all the orthography necessary, therefore, is to analyze the word into its different sounds; and write, in their proper order, the different signs representing those sounds. Let us take a few examples. Take the word *though*, which we spell with *six* letters. If we analyze, we find that it has only *two* simple sounds. The first sound is made by placing the tip of the tongue just between the teeth; and for want of any one single letter in the English langnage to represent it, is represented by the two consonants, *th*. The second sound is that which ought to be represented by the letter *o*; that is, if the letter was pronounced as it is in the word *stone*. The word in Phonography, therefore, is represented by two signs, or letters; the first representing the sound of the *th*, the second that of *o*; making the word spell *tho*, the *th* being represented by one character only. It may well be asked here, for what purpose are the letters *ugh* added? There is no necessity for them, so far as the sound of the word is concerned. They are of no use whatever, but to puzzle the learner of the English language. The word *sleigh*, we spell with six letters, yet when we come to analyze it we discover that it has only three simple sounds, the first of which is the hissing sound represented by *s*, the second the liquid sound represented by *l*, and third, the vowel sound of *a*, as in *mate*; Phonography, therefore, discards the *eigh* and writes merely *sla*. The word *rough*, we spell with five, yet when we analyze it we find that it has but *three* simple sounds. The first is the liquid sound of *r*. The second, the stopped vowel sound of *u*, as in *cut*. And the third is the whispered sound of *f*. The Phonagraphic writer, therefore, would simply write *ruf*. And so of every word; writing a sign for every sound and no more. Could any thing be more simple or more easily acquired?

The sounds of which words are composed are called the elements of speech; or, the elementary sounds of the voice; which sounds in Phonograghy are divided into vowels and consonants. The learner must carefully distinguish the sound represented by these terms; both from the signs by which they are represented; and also from the names given to these signs. "It is of the utmost importance," says Andrews and Bogle, in their introduction to their complete Phonographic class book, "that a pupil should break up the habit of regarding a *sound* as identical with the *name of the letter;* and that he should understand that, when we speak of vowels and consonants, we mean *sounds* of the voice, as heard by the ear, without any reference to the characters by which they may be represented, or the names that may be given to such characters.

"A vowel," says the same writers," may be defined to be the smooth or harmonious emission of sounding breath; as *e*, *a*, *ah*, modulated, but obstructed by the organs of speech.

"A consonant is a sound made either by a complete or partial contact of the organs of speech obstructing the sounding breath; in some

degree varying from an entire break or stoppage of it, as *p* in *rap*, *b* in *rob*, &c., to a simple roughness, or aspiration, impressed upon a vowel sound, as *h* in heat, hate."

In an analysis of words it may be somewhat difficult to utter some of the consonants without adding a vowal to them, for the reason that their sound is instantaneous and cannot be prolonged. The impression, however, that a consonant cannot be pronounced alone, without a vowel sound preceding or following it is erroneous. The greater number are even capable of being prolonged, like the vowels. This, for example, is the case with the hissing sound of *s*, which may be lengthened out to any extent, without at all losing its hissing quality. The consonants most difficult to utter by themselves, are those in which the contact of the organs are most perfect and complete; such as those represented by *p*, *d*, and *k*, the first made at the lips; the second at the teeth; and the third at the root of the tongue, near the throat. Also, the corresponding series *b*, *d*, *g* hard, as in give, which, however, are nothing but mere modifications of the form. These series of sounds are denominated *mutes;* as if was intended to intimate that they are destitute of sound; but the fact is, they have a sound, which we hear when we endeavor to pronounce so much of the name *he*, *be; kay*, *&c.*, as is not the vowel: making a sudden crack or explosion of the organs. As this, however, is the province of the teacher of Phonography, and can be interesting only to the student of that beautiful art, in learning to analize, and regard a sign as the representation of a sound, we will drop this part of the subject.

We do not wish to enlarge upon the many difficulties with which a child, in learning the English language, has to contend; but we will state a few facts, which will give some idea of the obstacles to be surmounted.

There are only twenty-six letters in the English language; and those letters have to represent forty-two different sounds. A number of those twenty-six letters must, therefore, have different values, so as to make up the deficiency in number. The letter *a* has nine different sounds; as in the words *imagine*, *mating*, *many*, *having*, *father*, *fat*, *fall*, *want*, *dollar*. The letter *v*, has also nine sounds, as in *woman*, *women*, *nor*, *hop*, *work*, *son*, *go*, *do*, *complete*. The combination *eo*, has nine, as in *people*, *leopard*, *dungeon*, *yeoman*, *galleon*, *feod*, *aweola*, *theology*. The English letters and combinations have collectively, says Andrews and Boyle, in the work already alluded to, "no less than the enormous number of *five hundred and fifty-three* different values." Besides the simple sounds in the language, may be represented in many different ways. The sound of *a*, in the word *mate*, in twenty-four ways. The sound of *e*, in the word *he*, is represented twenty-three different ways. And so of many others; making in all an aggregate of *three hundred and fifty* different signs and combinations of signs, to represent the simple sounds of our language. The word *scissors* might be written in any of *one million, seven hundred and forty-five thousand, two hundred and twenty different ways*; and in every case find authority in other words of the language to justify each letter and combination.

Let us now, in fine, sum up some of the many advantages which Phonography possesses over the present system of writing and spelling the English language.

In the first place, it is uniform, simple, and easily acquired. A child eight or ten years old can learn to read it in a week.

2. It is easily applied. No difficulty can be experienced in spelling with unerring certainty any word which can be pronounced; and no doubt will be experienced as to the proper pronunciation of any word which meets the eye. The orthography of words never lead into errors of pronunciation; for every one will spell as exactly as he pronounces; and pronounce exactly as he spells; thereby laying the foundation for a uniform pronunciation.

3. It is legible. No sign represents more than one sound; and no sound is represented by more than one sign, and every single sound is represented by the most simple sign, a letter.

3. It is capable of being written with greater rapidity than any other system. It is asserted by its friends, that a practical Phonographic writer can write *two hundred words in a minute.* In general, public speakers do not average in speaking, more than *one hundred and sixty.*

"If Phonography," says the authors of the "Class Book," already referred to, is not found to possess all these very desirable requests, let the fact be established, and Phonography either rejected or amended." But if it is true to all these conditions of science, as its friends claim that it is—so simple that all classes of persons can easily acquire it; perfectly legible; and capable by practice, of being written faster than people speak in public—then it surely ought not to be rejected as an innovation or treated as a chimera. Every new improvement in machinery—every new discovery in science, is hailed with joy; and why should not this greatest of all discoveries, receive a fair share of public attention, and public patronage?

In his "Plea for Phonotypy and Phonography," Mr. Ellis says, that "if Phonography was in general use, reading and writing would no longer be thought feats; their attainments being the end and the aim, which the parents of most poor children have in sending them to school. They will take their proper place as subsidiary arts, without which we can learn nothing? but which contain no learning in themselves; they will be universally esteemed as the *beginnings* and not the *ends* of education."

The writer of the foregoing article, believing that the claims of Phonography have not been sufficiently presented to the public, to insure that success which it justly merits, has deemed it proper, through the columns of "*The Western Journal,*" to invite public attention to the subject; satisfied that Phonography has only to be understood to be approved and adopted: and to entirely supercede the present system of writing and spelling.

ART. V.—THE CAMEL.

The suggestions of the writer of the following article, in respect to the use of the Camel in the defence of our southern frontier, well deserve the attention of the government of the United States. That the introduction of Camels into the service would enable our troops to pursue the Indians of the plains with more success than in any other way, there can be little doubt. It would cost but little to make the experiment. And, if the climate of Texas, New Mexico and California should prove as favorable to the Camel as that of Arabia, and other parts of the East, we are persuaded that they will be cheaper to the Government, in the end, than the use of either horses or mules.

But, besides their utility in the public service, the Camel will be found immensely useful to travellers across the plains and for the transportation of provisions to the mines in California; and it seems to us that no enterprise that could be set on foot, at the present time would be more certain to result in large profits than the importation of Camels. And it is remarkable that some of the enterprising spirits of New England have not made the experiment. EDITORS.

It is a fact well known to Eastern travellers and especially to those who have visited the mountain regions of Syria and Arabia, *that the Camel is as serviceable on the rough mountain path as in the moving sand of the desert.* The dry bed of a torrent is the caravan's high-road across the mountains and foot-prints the guides through the plains. The tough india-rubber-like soles of the Camels feet are affected neither by the burning sand, nor by the loose, sharp-edged stones strewed over the range of rocky mountains, running from the Taurus to the Indian ocean. The long legged, sure footed and indefatigable animal makes its way through heavy mud, crosses the rapid torrent, steps over huge stones and other impediments, which it often encounters with a heavy load and sometimes perhaps the additional weight of the lazy driver upon his back; while the mule would be unable to travel over the same ground though without any load whatever.

It takes but half a minute to secure the Camel in its kneeling position by the bridle string so that it can neither rise nor move until released. It is unheard of that Camels ever have been affected by the stampede or the pannic, disturbing so often the beasts of burthen in the west.

The Camel wants no shoeing, no bit, no carriage; a caravan of a hundred in Indian file requires but two men to keep it moving with all order—one at the head and one at the end.

The Camel drinks only every second day, but it may be deprived of water for three or four days together without any effect on its health or its vigor; it will perform an eight days journey with no other food than a three pounds weight of oil cake and a few hand-fulls of grain or beans per diem.

The common days journey of caravans of burden Camels in Syria and Arabia is from twenty-seven to thirty English miles, and the load

on such journeys is between from four to five hundred pounds. Egyptian Camels reputed the tallest and strongest breed will carry for the short distance of six hundred to one thousand yards from ten to twenty cwts. The India mail is conveyed from Suez to Cairo—a distance of ninety three miles—in eighteen hours. The Cavass (express) of the Egyptian government mounted on running Camels or Dromedaries perform the said distance with one animal in six to eight hours.

The Dromedary is not a particular species; any young Camel may be trained for racing and for war, although the mountain breeds are best adapted for these purposes. The Dromedary carries a sixty pounds weight in addition to its rider and will outstrip the fleetest horse in a days journey, as the French Chevaux-legers in Africa found out to their vexation in their twenty years struggle with the children of the desert. The running Camel moves with ease for weeks together at the rate of eighty miles a day, while no horse can go longer than one day to a day and a half at the same rate; they are evidently the only animals upon which the Texans can undertake to outstrip and subdue the border tribes.

The Camel is also very successfully employed for draught, as the writer of this article observed in Alexandria (Egypt) and by the English Engineer department at Aden (Arabia felix). In this respect it is far superior to the slow and greedy ox; it draws as much as two oxen, walks twice as fast and eats but for one.

The Camel may be broken in when three years old and is useful and active to the age of eighteen or twenty.

Among the Mohommetans, Camels flesh is an article of food, when young it is not easily distinguished from beef. Camels milk is the chief food of the Bedouin, and the hide of the animal is considered superior to every other for sandals.

The Camel is certainly more useful than either the lama, mule, horse or ox as well on account of its superior strength, frugality, endurance and willingness, as for its adaptability to every climate and every soil.

The one humped or Arabian Camel would answer best to the climate and soil of Texas, New Mexico and lower California, and the two humped or Bactrian to northern California and Oregon. The Arabian Camel is fleeter than the latter and no doubt could be imported with less cost from the Moroccan coast into Texas than the Bactrian from the mouth of the Amoy river.

I have thus enumerated some of the advantages which would render the introduction of the Camel into Texas an inestimable benefit. The honor of the idea belongs to the Spaniards, who had imported some Camels into Mexico shortly before the revolution, but they destroyed them at their retreat from the country—unwilling to leave the breed to insurgents of such a powerful auxilary to man in peace and war. There is no reason why the Camel should not be as serviceable to man on the prairies of Texas and the mountain regions of Mexico, New Mexico, California and Oregon, as in the corresponding tracts of the old world—the line of country from Orenburg (Syberia) to Mogadoxo (east coast of Africa) and from Pekin (China) to Mogador (west coast of Africa). It would be acclimated as soon and as easily as the "genus equus" no species of which existed in the western hemisphere until the Spaniards imported the horse and ass; meanwhile the new world already possess an animal of a corresponding species to the Camel—the Lama.

On board ship the Camel kneels on its own accord during heavy seas and rises when the vessel is steady again, unlike the horse, which tires itself out by rolling with the vessel and standing always on its legs. The menagerie conductors never lose an animal in crossing the sea from Egypt to England and from England, to the United States.

The Camels will serve as "chevaux de frise" against cavalry attacks, if need should be, as no horse unacquainted with the sight and noise of those animals dares to approach.

The depredatory Indian tribes would have no longer a shelter in the swiftness of their horses and the bareness of their retreats if hunted down by a corps of "lancer—riflemen" mounted on the renowned Moroccan Dromedaries!

If the Bedouins of Africa, with the Dromedary for auxiliary resisted French soldiers for twenty years, and the Bedouins in Syria, Kurdistan and Arabia the Turkish Nezam's (regulars) for evermore,—how long will the Bedouins of America resist the Anglo Saxon command, on the borders of their new territorial acquisition assisted by this powerful auxiliary—the running Camel, the ship of the desert?

The following is the largest estimate that can be made of the expense of importing one hundred Camels from Morocco to Corpus Christi.

One hundred Camels at an average price of $50 each	$5000
Twenty colored attendants at $15 a month for three months. - - - - - - - -	900
Agency for superintending the purchase, the loading and landing of the animals, - - - - -	1000
Travelling expenses, - - - - - - -	600
Freight of attendants and Camels from Morocco to Corpus Christi, - - - - - - -	5000
Insurance 2 per cent, on $17,500 - - -	350
Food, water and stabling of the Camels from the time of purchasing, - - - - - -	4000
To the time of landing at Corpus Christi and victuals for the attendants, presents to brokers, merchants and unforeseen expenses, - - - - -	650
Amount brought forward, - - - - - -	$17,500
Allowing for saddles, harnesses, tents, water bags of India-rubber, cordage, blankets, cooking utensils and arms, - - - - - - - - -	2500
The cost of the one hundred Camels at Corpus Christi, ready for a journey, will be - - - - -	$20,000

or $200 a head—not including the very improbable chance of losing some on the voyage, which is already accounted for in the extreme estimate of first cost, freight and expenses in general.

I never have seen a burden Camel sold for more than $50, but I bought some myself in the Red Sea as low as $3 to $5 a head. Running Camels I have seen selling for $20 up to $200!

Admitting only of eighty passengers at $100 a person to San Diego or San Francisco, guaranteeing so by this limited number the uninterrupted journeying with a speed of thirty miles a day, this first trip would only produce $8000, but compensating largely for all expenses

and loss of interests up to a country where such a useful animal is worth at least a $1000!—if it should not be thought proper to employ it in the transportation line between the Sacramento and the Diggins, or to return with fortunate adventurers at $300 a person! either to Missouri, Arkansas or to Texas.

Taking the average weight of a person to be one hundred and fifty pounds, the passengers, baggage, arms and provisions two hundred and fifty pounds, and a reservation of weight for water and food, and victuals for the attendants, one hundred pounds, the burden of the animal for the greater part of the journey will be reduced to about three to four hundred pounds, as it is not always necessary to carry water and food on the journey and as travellers prefer always to follow the Camel on foot during the cooler parts of the day, therefore a thirty miles per diem is a safe average for the whole length of the journey.

Memphis, (Tenn.) EMANUEL WEISS,
A Swiss traveller in Syria and Arabia.

ART. VI.—STE. GENEVIEVE:—ITS EARLY HISTORY.

The ancient town of Ste. Genevieve is beautifully situated on the west bank of the magnificent Mississippi, about sixty miles below St. Louis. Reposing in beauty amidst the surrounding hills, it presents a most charming view from the river; whilst the interior is delightfully diversified by beautiful streams, which meander through the town, on their way to mingle with the father of waters.

Located in the neighborhood of a rich mining and agricultural country, and abundantly supplied with building materials, Ste. Genevieve possesses more advantages for manufacturing than any other place in south-eastern Missouri.

The commerce of Ste. Genevieve, must also become important. For, besides being the place whence the lead from the rich mines of south-eastern Missouri is shipped, it is now, and must remain the depot and shipping point of the incalculable quantity of Iron produced at the Pilot Knob and Iron Mountain—distant about forty-two miles. Were the contemplated railway from Ste. Genevieve to those vast deposits of Iron completed, and a line of steamboats established between this point and St. Louis, St. Genevieve would, in a few years, become a commercial city of no inconsiderable importance.

The immediate vicinity of Ste. Genevieve abounds in natural wealth: Marble, Limestone, and Sand, exist in vast quantities. The marble is worked with much ease and cheapness; it is well adapted to the manufacture of toomb-stones and monuments; and, is a most beautiful material for building.

The Ste. Genevieve Lime is estimated to be of a very superior

quality; and a large amount is made here annually, and shipped to the Memphis and New Orleans markets. The Sand, which is of a beautiful dazzling white resembling loaf sugar, is considered the best in the United States, for the manufacture of glass; and large quantities are shipped to Boston and Pittsburgh for the manufactories of those cities.

Possessing so many elements of wealth, and affording so many sources of profitable employment, we may well indulge the thought that the day is not far distant when Ste. Genevieve will have an active, numerous and wealthy population; and become one of the most important manufacturing towns in the State of Missouri.

The present town of Ste. Genevieve was settled by a few French families about the year 1785, previous to "*Lannee des Grands Eaux*," (the year of the great flood.) In consequence of the overflow in 1785, a portion of the inhabitants of Kaskaskia, in Illinois, and of "*Le Vieux Village*, (the old village) of Ste. Genevieve emigrated to this place; and it was not until it received this addition to its population that it assumed the character of a village. The old village of Ste. Genevieve was settled about the year 1735, and was located in what is now called "*Le Grand Champ*," (the big field,) about three miles distant from the present town. Of the old village nothing remains.

Originally, "*Le Grand Champ*," which lies immediately below the town of St. Genevieve, contained 4000 acres of land, all under one fence, and cultivated in common by the inhabitants; but is now diminished in size, caused by the caving in of the banks of the Mississippi. This "*Le Grand Champ*" is one of the most beautiful and fertile bottoms on the face of the globe; and is every year decorated by its rich products, that lie on its surface in magnificent profusion, furnishing most of the necessaries of life to all the inhabitants of St. Genevieve, a great number of whom are cultivators of "*Le Grand Champ*."

The original settlers of the town of Ste. Genevieve, are Joseph Loiselle, Jean Bapt. Maurice, Francois Coleman, Jaques Boyer and Julien Choquet, who had settled here previous to "*Lannee des Grandes Eaux*," (the year of the great waters:) and by Jean Bapt. Valle, Sr., Henri Maurice, Parfait Dufour, Joseph Bequette, Jean Bapt. Thomure and Joseph Govreau, Sr., who came immediately after the Great Flood of the same year, 1785. These persons were all remarkable for their strong constitutions, simplicity of manners, and honesty of purpose; and were endowed naturally, with good minds, but without the advantage of a liberal education. They were free of ostentation and a display of pleasure, except such as were of an innocent character. Their dresses were remarkably plain—they wore heavy striped gingham pants, without the support of suspenders, but fastened by a belt and clasp around the waist, without vest—a blue or colored shirt, a white mackinaw blanket coat, with a capuchon —moccasin shoes, and a blue cotton handkerchief around the head.

The apparel of the early female inhabitants was also very simple. They wore a blue cotton Jupe, which, reaching down to the waist, was fastened by callico strings: their beautiful shoulders and busts were ornamented with a mantlet; their necks decked with a rich madrass handkerchief, and their feet clad in moccasin shoes; whilst their heads were encircled with a blue cotton handkerchief.

The patriarchs of Ste. Genevieve were, by occupation, cultivators of the soil, and voyageurs with barges and keel boats to New Orleans.

They were also traders in European goods which they exchanged for furs, peltries and lead.

These adventurers in their early settlement of Ste. Genevieve, had to encounter many privations, and they passed through the ordeals of many romantic adventures of a savage life; and well they deserve the appellation of pioneers, who felled the forest, and made way for the advance of civilization in the great west of our Union. But they have sunk into their graves and are now no more. But, a few days ago, one of the patriarchs above mentioned could be seen in the town of Ste. Genevieve, leaning on the staff of old age, with ease and grace: his head seemed bleached with nearly one hundred winters. This venerable old man was Jean Bapt. Valle, Sr. His wife, also, lived to an old age, loved and venerated by all. Some years previous to her death, in accordance with an old French custom, she was remarried to her husband, Jean Bapt. Valle, Sr., after half a century of the enjoyments of a married life. It was an imposing and solemn ceremony to see this venerable couple renewing the first vows of their early affection and love, at the hymenial altar.

At an early period, known as "Lannee du coup," (the year of the blow,) the inhabitants of "Le vieux Village de Ste. Genevieve," were called upon to defend St. Louis, which was then threatened to be attacked by the English and different tribes of Indians. Sylvio Francisco Cartabona, a governmental officer, was ordered to Ste. Genevieve by Don Ferdinando Leyba, then Lieutenant Governor of the post of St. Louis, to enlist a company of militiamen for the protection of St. Louis. A company numbering sixty men was raised under the immediate command of Charles Valle, of the post of Ste. Genevieve, which went up in a keel boat, and were stationed at St. Louis; but whilst there the Lt. Governor, Don Ferdinando Leyba, did not furnish them with amunition, which they were mostly destitute of; thus causing much disappointment and mortification to the gallant men, who had left their homes to go and defend their friends in St. Louis. Little did the Ste. Genevieve company think, at the time, that the Lt. Governor was acting in bad faith towards them and the town of St. Louis; but his subsequent conduct fully proved his treachery and placed the Ste. Genevieve company in a false position, as they had partly to obey orders under the despotism of Spain, which was repugnant to their feelings.

Previous to the attack upon St. Louis, an old man named Quenelle, a resident, had crossed the Mississippi river, and went to the mouth of the Kahokia creek, in Illinois, and from what he had seen of the disposition of some Indians, and a notorious out-law named Ducharme, on his return he informed the Lt. Governor, Leyba, that an attack would soon be made; for which he was treated with contempt and sent to prison.

About the time of the attack upon St. Louis, the commandant of the Ste. Genevieve company, seeing that he was deprived of powder, by the Lt. Governor, Don Ferdinando Leyba, sent five men to take three kegs of powder, which an old lady, resident of St. Louis, had, at the time, but did not wish to deliver up, insisting on them not to do her any harm should she persist to give up the powder. They, however, conveyed the powder to head quarters, and the com-

mandant, Charles Valle, seeing the treachery of the Lt. Governor, determined not to obey orders.

Whilst the commandant of St. Genevieve was absent from his head quarters, Leyba ordered the company to march up into a garret and spike their gun; and some of the men had obeyed the order, but as it was about being executed by the whole company, the brave commandant of the St. Genevieve company came up, and at once perceiving the treacherous order, refused, and said, "Que son poste est pres de son canon, et non dans un grenier, et que si l' ennemi viendrait, qu il serait pres a se defendre;" and standing to his post, ordered his men to stand by him, and did all he could, under the circumstances, to aid the citizens of St. Louis, when that post was attacked by the enemy.* It is well known that Lt. Governor Leyba acted in bad faith, and was despised by all the inhabitants of St. Louis and Ste. Genevieve, on account of his treacherous conduct; and feeling conscious of his own foul acts, died shortly after. It was thought that he terminated his own life by poison. After the attack on St. Louis had failed, the company returned to their home, "Le vieux Village de St. Genevieve."

Ste. Genevieve is now made the place of deposit for all the Iron Ore from the Pilot Knob and Iron Mountain, and at this time, more than 3000 tons of the ore lie at Ziegler's Landing, to be shipped to divers cities, but principally to Pittsburgh. Also is here deposited, to be sent to different cities in the United States and to Europe, nearly all the lead, cobalt and copper, made in the neighboring counties in South-East Missouri. Two newspapers are now established in Ste. Genevieve—the Pioneer and the Democrat. The Telegraphic Line,

*In noticing this attack on St. Louis, at page 78 of the 2d Vol. of the Western Journal, we used the following language: "the inhabitants of the town repelled the attack with spirit and bravery, but the greater part of a company of militia, that had been brought from St. Genevieve to aid in defence of the town, either through fear or treachery, hid themselves in a garret, during the attack—while the Lieutenant Governor, Leyba, who, as it was believed, had been bribed by the British, was guilty of the most open acts of treachery to the citizens."

We made the foregoing statement on the authority, though, perhaps, not in the precise words, of Mr. Primm's anniversary address. Not doubting but that Mr. Primm, and also, the author of the article before us, have both stated the circumstances attending the attack on St. Louis according to their belief in the sources whence they respectively obtained their information, yet, in our estimation, the account of Mr. Rozier appears more consistent with the character and relations of the parties concerned.

It is admitted on all hands that the Lieutenant Governor Leyba, was a traitor; and we must suppose that he had sufficient inducements, from some quarter, for his conduct; but it is difficult to imagine what motives could induce the men of Ste. Genevieve to betray their countrymen and neighbors; especially in a country containing so few civilized inhabitants. Nor, should we admit the suspicion of cowardice, in respect to such men, without very strong proof.

Inhab tants of a small village surrounded by savages; remote from the protection and succour of civilized men; voyageurs on the Mississippi, enured to hardships and dangers; and, withal descended from a gallant race, the men of Ste. Genevieve could scarcely be guilty of cowardice in the defence of a neighboring village of their own countrymen. The treachery of Leyba, a Spanish officer, for whom the inhabitants of Ste. Genevieve could have had but little sympathy, sufficiently accounts, in our opinion, for the conduct of the Ste.Genevieve company. Those hardy pioneers prepared the way for the settlement of this country; they suffered many privations; and it devolves upon us of the present generation, as a sacred duty, to preserve the record of their virtues; and as far as truth will permit rescue their character from every dishonorable imputation. This we owe to them, to the honor of our common country, and to history.

that connects Nashville and St. Louis passes through the town of Ste. Genevieve, and an office is shortly to be put up, which will be of great importance to the commercial men of this place, in transacting their business with the south and eastern cities. Nothing seems more surprising and magic-like than the flashes of intelligence flying with the rapidity of lightning through the old town of Ste. Genevieve.

ART. VII.—PACIFIC RAILWAY.

We have been induced to publish the following plan of constructing a rail way to the Pacific by the suggestion of a correspondent for whose opinions we have great respect, and. who gives it the preference over any that has yet been published. We have no desire to forestall public opinion, but feel constrained to remark that according to our view this plan involves the expenditure of too much private capital. Our reasons on this point will be found at large in the last number of the Western Journal, to which we beg to refer our readers.*

EDITORS.

From the Providence Journal.

ANOTHER PLAN FOR CONSTRUCTING A RAILROAD TO THE PACIFIC.

Now that the public mind is fast approaching the point of decisive action on this important project, suggestions going to give a right direction to such action may be in order. Already we have plans from New York, by Whitney, from Missouri, by Benton, from Massachusetts, by Degrand, and why not one from Rhode Island? Benton would have it entirely a Government work, while Whitney and Degrand would do it wholly by private companies, operating with capital furnished them by Government, assuming a capacity for the application of the means superior to the Government.

Between the two extremes we take our position, fully impressed with the decided advantages to be secured by separating the work into two grand divisions: The first to be carried forward as a Government work, by funds derived from the issue of Government stocks. The second, to be accomplished by an incorporated and responsible company operating with their own capital, and not by that drawn from Government.

Division First, to embrace, Topographical and Geological exploration and survey; Location of line and securing the right of way; The grading of the road, its masonry and bridges; Construction of ample wharves and docks at its terminus on the Pacific.

Second Division, to embrace, Laying the track and completing the

*Vol. 3, page 199.

superstructure; The entire equipment, future maintenance, management and operation of the road, agreeable to the conditions and stipulations of the Government's transfer to the company.

From St. Louis to San Francisco is about 2300 miles. State Governments co-operating with Incorporated Companies in about seventeen years have built in this country more than 5000 miles of Railroad, at an average cost of $24,500 per mile; and is it extravagant to assume that the Government of the United States, co-operating with a strong company, can finish in eight years twenty three hundred miles, at an average of $30,000 per mile? making the total cost of first construction, say seventy millions of dollars. Our plan would divide this expenditure about equally between the Government and the company.

It will be asked, can such a company be formed without injury to the other business interests of the country? We think it can. Let the next Congress meet this project, and by the necessary legislation determine upon the completion of the first division at the earliest day. At the same session let them indicate the terms on which a transfer of the graded line to the right kind of a company would be made. Let those terms be liberal. It would have it in its power to say—"the entire improvements contemplated in the Government Division of the Road shall be transferred and made over to a company that can furnish satisfactory assurance of the fulfillment of its contract for the following considerations, viz: That within six months after the grading is done a locomotive shall traverse the whole line. That the Road shall always be kept in good order, and managed after the model of the best road, and according to the restrictions of the contract. That the company transport forever, free of charge, mails, materials, and men belonging to, or employed in, the service of Government; thus securing between the Atlantic and Pacific States a penny post, and a permanent reduction in the yearly expenses of Govennment fully equal to the interest of its investment. The insecurity inherent in the institutions of Europe, is inducing her capitalists to seek safe and permanent investments in this country, and here would be presented just such a field as they are anxiously looking for, so that instead of an injurious diversion of capital from the channels of the present business of the country, we have secured a great accession to it.

Again, upon the existing Railroads, built at a cost of about $130,000,000, all of which would be directly benefitted by the opening of this, there will result an increase in value of not less than five per cent, making about six millions, which would probably equal the amount of stock taken by capitalists in the Atlantic States.

It is difficult to calculate what amount of stock would be taken by the citizens of the Pacific territories. We know the road to be universally a pet, a favorite project; and it is not improbable that it would become a sort of Savings Bank to the accumulators of gold in those Western mines.

Is it not apparent that Congress would have it in its power to ensure the formation of a right sort of a company by the liberal nature of its terms? And Government could well afford to be liberal; for, let it be remembered, there is no disposal of adjacent lands required on this plan, until after their value has been enhanced by the completion of the work; and it is admitted by all who have examined the subject, that this increase in value, will exceed the whole cost of the road.

Government should send into the field next winter its commissioners, with ample instructions and means to put the entire line under contract at the earliest day. We anticipate the organization of the company within twelve months of that time or before fifty miles of the line are in readiness for the track, when they should begin to operate from the terminus towards the centre, following close upon the forces at work on the Government division, whose supplies would come over the track thus laid. A detachment in the Government service, composed of land surveyors and receivers, under a Commissioner, should keep pace with the progress of the track, in laying out into sections and quarter sections, the fertile lands on either side, extending back some thirty miles, and bringing the same into market. Thus at a very early stage in the progress of our plan would a compensating revenue begin to flow back to the Treasury, constantly increasing with the progress of the work, up to its completion; and exceeding the amount of the Government expenditure from seventy-five to one hundred per cent.

Railroad Engineers will perceive that the line of separation between the two divsions is drawn exactly where, in the progress of railroad building, there is a natural division growing out of a change in the character of the work, and of the operatives who perform it. This being the case, the forces on each could operate at the same time without interference or competition. It is common to let the work of the first division to one class of contractors, and that of the superstructure to another.

There are two elements not sufficiently appreciated by most that enter largely into the cost of this work; they are interest on the cost, and depreciation in the value of the first constructions, before the line is completed and becomes productive.

Twenty-five years are contemplated in the bill reported last winter for carrying on the plan submitted by Whitney. Annual interest on his expenditures will amount to not less than 25,000,000, and he puts depreciation at 15,000,000, making an aggregate loss of 40,000,000; the most of which would be saved if eight instead of twenty-five years were only allowed.

From this it will be seen, that having regard to the strictest economy in expense,we must adopt that plan which secures the most speedy completion.

Why then should a plan any longer divide the public attention that fails to meet the daily increasing wants of our citizens; that has not even economy in construction to recommend it; that furnishes no assurance whatever of securing the object; that is strongly marked with features of a speculative character? And why should another plan be advocated that requires an increase of our national debt of ninety eight million, and a donation from Government besides of half of all the lands adjacent to the Road, when here is a plan that guarantees the completion of the project in the shortest practicable time by the joint efforts of two powerful agencies, each in vigorous operation, for the same result; a plan that, while using some thirty-five million of government funds, creates and enlarges the sources of the national revenue to more than double that amount, a plan that secures a national location, guided by an enlarged view of the wants of the whole country, and not sectional; as would brobably be the case if

given into the hands of northern or southern capitalists? What kind of a location are we sure of on Whitney's plan? Is there no risk where the quality of the land adjacent is to effect the value of the locator's property; than the strict commercial wants of the country will often yield to the latteral attraction of a range of fertile lands or of gold placers?

Our plan not only secures a national location, but the Road is retained just long enough in the hands of Government to be stamped with all the features of a great national work, and is then passed over to the company, who are to perfect and fill up the outline.

Thus we have sought to develope a mode of operations at once simple and comprehensive, devoid of all complexity, by which this great trunk can be constructed, *in the shortest practicable time*, and *at the least expense and trouble to Government, and in the right place.* Here no chance for extended political patronage is given, because Government ceases to have any part in the management of the Road after the grading is completed. TALBOT.

ART. VIII.—PROGRESS OF IMPROVEMENTS IN THE WEST.

The movements which have been going on during the last year in respect to Rail-way, and other improvements, constitute the most interesting feature in the political economy of the times; and, therefore, claim the consideration of all classes of citizens in every part of the country. The agriculturist, the merchant, manufacturer and laborer, are all affected in some degree by these movements, and interested in knowing the extent of their progress. Although much has been said on the subject of Rail-roads, and other improvements in the States bordering on the Mississippi, the movements here have been initiative merely, and but little progress made beyond the meeting of citizens in conventions, and the granting of charters by the State Legislatures. Indeed this seems to be a fatal point in our progress. Generally, the enterprise moves on very well until the charter is obtained, but the difficulties in the way of making the next step are so numerous, that few individuals have courage to encounter them, and the project is consequently abandoned, at least until the coming of better times.

This is the history of the Rail-roads in Missouri, with a few exceptions. And we might here conclude our remarks on the Railroads of this State, were not our labors designed as much for future reference as for present information. As a matter of history, therefore, we shall proceed to give an account of the Rail-road movements in Missouri, for the year 1849, as far as the facts have come to our knowledge.

PROGRESS OF IMPROVEMENT IN MISSOURI.

The Legislature of this State, which convened on the last Monday in December, 1848, granted charters for six Rail-roads.

1. The Palmyra and Mississippi Rail-road. This road, as we learn from the preamble to the charter, had been surveyed, and about thirteen thousand dollars subscribed for its construction—about four thousand of which had been expended previous to its incorporation. We have no definite information in respect to the progress of this work during last year. This is one of the Missouri enterprises, however, that we think will, probably, be carried into effect. The capital stock of this corporation is $30,000, divided into 600 shares of fifty dollars each.

2. The Hannibal and St. Joseph Railroad. A charter was granted for the construction of this road about three years ago. In 1849, the Legislature of Missouri appropriated $5,000 towards defraying the expenses of surveying the route. But as we understand the act, the directors are not authorised to use this appropriation until Congress shall have "donated alternate sections of the public lands, to the extent of six miles upon each side of said contemplated Rail-road from one end to the other." We understand, however, that the citizens interested in this road, have caused a survey to be made by the use of their own means. This shows an earnestness in the cause that authorises the expectation, that if Congress should make the donation asked for by the company, the work will be prosecuted with vigor to its completion.

This is a work of incalculable importance to northern Missouri; and claims in its behalf the support and energies of the inhabitants of an extensive and fertile district.

3. The Missouri and White River Rail-road. This road is to commence "in the town of Independence, in Jackson county, and run from thence to White river, at the most convenient point on said river, at or near the town of Forsythe, in Taney county, where a good terminus for the road can be obtained. We are not aware that any stock has been subscribed, or that any steps have been taken to survey the route. Capital stock $3,000,000.

4. The Alexandria and St. Francesville Road. This road is designed as a connection between Alexandria and St. Francesville, in Clark county. The company have the privilege of making either a Rail or Plank road, as they may deem most to their interest. Capital stock $50,000, divided into shares of $100 each. We have not heard whether any thing has been done towards the prosecution of this work.

5. The Independence and Missouri Rail-road. This road is designed to connect the town of Independence with the Missouri river at Hickman's landing, a distance, we believe, of about three miles. The work was commenced by the citizens of Independence before the charter was obtained, and will, doubtless, be completed in a short time. Capital stock, fifty thousand dollars.

6. The Missouri and Mississippi Rail-Road. This road is to commence at the town of Lexington, in Lafayette county, and pass by the way of Warsaw, in Benton county, to any point in this State, deemed most desirable on the Mississippi river below the mouth of apple creek. Capitol stock, $4,000,000, divided into shares of $100 each. We do not know whether any steps have been taken towards the commencement of this work. The company are required to commence in ten years or forfeit their charter.

7. The Pacific Rail-road. This road is to commence at the city of St: Louis, and, passing through Jefferson city, continue to the western line of the State at some point in Van Buren county, with a view that it may be continued westward to the Pacific Ocean. Capital stock, $10,000,000, divided into shares of $100 each. No act has yet been done by the directors, we believe, under this charter.

8. Carondelet and St. Louis Rail-road. A charter was granted in the year 1837, for the construction of this road, but some alterations were made in it at the last session of the legislature and commissioners appointed to open Books for subscriptions. Books have been opened by the commissioners, but we have no information in respect to the amount of stock taken. Capital stock, one hundred thousand dollars. With the privilege of increasing to one hundred and fifty thousand dollars.

The legislature of 1849, granted a charter to an association of counties and individuals, for the improvement of North Grand river, with a capital of $300,000. It also incorporated a company for the purpose of making a canal from the Mississippi river, commencing at a point near Point Pleasant, in New Madrid county, and terminating near the town of Bloomfield, in Stoddard county. Capitol stock, one hundred thousand dollars—but these works, we believe, like our Rail-roads, have made but little progress.

IMPROVEMENTS IN ILLINOIS.

A great many railway projects have, also, from time to time, been projected in Illinois, and, although the greater part of these, like those of Missouri, stop with the action of the legislature, yet, she is far in advance of us. The Chicago and Galena Rail-way is progressing with a fair prospect of being completed in a reasonable time. This is a work of great importance, not only to Illinois, but to the northern part of Iowa also. The road from Springfield to the Illinois river has recently been repaired and put in a condition for business. We understand, also, that the road which has been so long in contemplation, from Alton to Springfield, will shortly be commenced in earnest. This is an important road, calculated to afford facilities of transportation to a large agricultural district not surpassed in fertility perhaps, by any part of the globe.

IMPROVEMENTS IN INDIANA.

We have desired for some time past to obtain from an intelligent and reliable source, a full account of the progress of improvement in Indiana, and have written to several individuals of that State for information, but have received no response to our enquiries. The Hoosiers are, in some respects, a peculiar people, at least they appear so to their neighbors. They certainly do more and say less about it than any other people we have heard of. We have been examining the newspapers for a long time, with a hope that some one in an unguarded moment had made known what they were doing, but we searched in vain, nor should we now be able to speak of their improvements had not an inquisitive traveller communicated the facts. We publish the article as we find it in the "American Rail-road Journal," if it should contain any errors we trust that some of our intelligent readers in Indiana will correct them.

"The State of Indiana is so little known at the east, and so seldom spoken of in the eastern journals, that the inhabitants say, and with great propriety, that when any person, other than a resident of the State, speaks or writes of the improvements and resources of the west, they make but one stride from Ohio to Illinois or Missouri, and step entirely over the State of Indiana.

Why this should be the case is more than I can understand, for Indiana is at least worthy of notice, even did she not possess within herself resources rapidly developing, that will ere long place her among the first of the internal improvement and manufacturing States.

She is making long and rapid strides in manufactures and agriculture, independent of her rail-roads and canals; and these are advancing with a rapidity that will, I think, astonish even the "go ahead" people of the east. In a short visit recently made to Indianapolis, I was so much surprised at the progress her railroads are making, that I was lead to make some enquiries, and I forward you the results of them, which, should you consider worthy of notice, you will please give a place in your Journal.

The Madison and Indianapolis railroad comes first, as it was the pioneer. The great success of this road has done much towards bringing about the results which we now witness. This road, running from Madison, on the Ohio river, to Indianapolis, the capitol of the State, a distance of 86 miles, has been in operation for many years. It was originally laid with a strap rail, which is now giving place to a heavy H rail of 60 lbs. to the yard. Fifty-six miles of the entire distance are already relaid, and the remainder is fast being completed, and the road is one of the best paying roads in the Union.

2d. The Shelbyville road, running from Edinburgh on the Madison road, to Shelbyville, a distance of 16 miles, is also completed with a strap rail 2-1-2 x 7-8, and is in successful operation.

3d. The Rushville road, branching from the Shelbyville road at the latter place and running to Rushville, a distance of 21 miles, is entirely graded and is fast receiving its superstructure and iron, the latter being a strap rail 2-12x7-8.

4th. The Knightstown road, also branching from the Shelbyville road at Shelbyville, and running to Knightstown, 25 miles, is far addanced towards completion, and is likewise receiving tts iron, a strap rail 2-1-2x7-8.

5th. The Columbus and Bloomington road, which branches from the Madison road at Columbus, and is designed to run to Bloomington, 37 miles west, where it enters the great coal basin of Indiana. A charter for this road is obtained and a sufficient amount subscribed and guaranteed to insure its completion.

6th. The Jeffersonville road commencing at Jeffersonville, on the Ohio river, opposite Louisville, and running north 66 miles to Columbus, where it intersects the Madison road, is far advanced towards completion, and the company are now receiving their iron, a heavy H rail weighing fifty pounds per yard.

7th. The Franklin and Martinsville road, running from the Madison road at the former place, 27 miles west to the latter, is located, and one half is to be let to contractors next month.

8th. The Lawrenceburgh and Greensburg road, running from the Ohio river at Lawrenceburg northerly to Greensburg, a distance of

42 miles, is at present under contract. This road will ultimately be extended about 30 miles from the latter place to intersect the Madison and Indianapolis road between Franklin and Edinburg.

9th. The New Albany road runs from New Albany, on the Ohio river, 5 miles below Jeffersonville and nearly opposite Louisville, to Salem, 35 miles, thence to Bedford, Bloomington, Gosport and Crawfordsville, 120 miles further, where it will intersect the Lafayette and Crawfordsville road. The New Albany road is located and under construction to Bedford, 65 miles, and iron delivered at present to lay 18 miles. This road will be in operation to Salem next spring, and to Bedford next fall or winter.

10th. The Lafayette and Crawfordsville, running from the terminus of the New Albany road at the latter place to the Wabash river at the former place, a distance of 28 miles, is nearly graded and will probably be finished next season.

11th. The Evansville road, commencing at Evansville on the Ohio river, and running to Princeton, 28 miles, is now being located. From Princeton it will probably be extended 28 miles to Vincennes, and from the latter place it will either run to Terre Haute, 65 miles, or direct across to Indianapolis, about 110 miles, and will in all probability as the country becomes settled, diverge at Vincennes and run to both places.

12th. The Terre Haute and Richmond railroad, commencing at Terre Haute on the state line of Illinois, runs from thence to Indianapolis, 72 miles, and from there 73 miles to Richmond on the Ohio state line. The first division of this road from Terre Haute to Indianapolis is entirely located and under construction, and is to be laid with a heavy rail of 60 lbs, to the yard. The second division from Indianapolis to Richmond, will probably be abandoned and the road diverted from Indianapolis direct to Rushville, and thence across to Cincinnati, via Hamilton, 110 miles, or from Indianapolis to Greensburg, and thence to Lawrenceburg and Cincinnati, the distance in either case being about the same.

13th. The Indianapolis and Lafayette road, running from the former to the latter place on the Ohio and Erie Canal and the Wabash river, a distance of 69 miles, is now being constructed, and will be in operation some time next year. It is to be laid with a heavy rail. Upon its completion to Lafayette, it will be extended north to Michigan City, a distance of 90 miles, there to connect with the New Buffalo and Chicago road.

14th. The Indianapolis and Peru road running from the former city to the Ohio and Erie Canal at the latter place, a distance of 76 miles to be laid with a strap rail 2-1-2 × 7-8 is now building, and some portion of it will be in operation next year.

15th. The Indianapolis and Bellefontaine road, passing through Pendleton, Anderson, Munice and Winchester, to the Ohio State line, a distance of 83 miles, is now constructing, to be laid with a heavy rail.

At the State line it will connect with the road of the Bellefontaine and Indiana company, and thence by their road to, and crossing the Cincinnati and Sandusky city road at Bellefontaine, will extend to Gallion, Ohio, where it will intersect the Cleveland and Columbus road, and connect with the Pennsylvania and Ohio road to Pittsburgh.

16th. The Michigan and Ohio road to run from Logansport on the Ohio and Erie canal to Anderson on the Indianapolis and Bellefontaine road; and thence to Newcastle and Knightstown, a distance of about 95 miles, is now about being surveyed—a sufficient amount being subscribed to justify its commencement. At Knightstown it will connect with the Knightstown and Shelbyville road; and thence by that and the Shelbyville road will connect with the Madison road at Edinburg—thus giving another connection between the Wabash valley and the Ohio river. This road will also probably be extended from Knightstown direct to Cincinnati.

17th. A road to run from Fort Wayne on the Ohio and Erie canal, to Muncie on the Indianapolis and Bellefontaine road, about 70 miles, is also under consideration. A charter has been obtained, and, I understand, that the preliminary steps are about being taken to urge it forward.

18th. The Michigan Southern railroad. It is proposed to change the original line of this road, after reaching Cold water in Michigan, by making a detour south from this point, and running through the northern counties of Indiana to the south shore of the Lake. The length of this line in this State cannot be less than one hundred miles. The route has been surveyed, and there is every prospect that the work will be soon commenced. When constructed it will form the most direct line of railway between the south shore of Lake Erie and Chicago.

In addition to her railways, Indiana has also a long line of canal navigation, to wit:

The "Ohio and Erie canal," 100 miles longer than the great Erie canal in New York, and the "White water canal." The former runs from Toledo on Lake Erie, to Evansville on the Ohio river, traversing the entire length of the State. It is already in operation from Toledo to Terra Haute on the Wabash, and is under construction, to be completed in two years from the last named place to Evansville. This canal traverses for a long distance the fertile valley of the Wabash; and cannot fail, from the character of the country through which it passes, to be one of the best paying canals in the Union.

The "White Water canal," running from Hagerstown in Indiana, through Cambridge, Connorsville, Brookville and Harrison to Cincinnati, with a branch to Lawrenceburg, is already in successful operation—comprising, with its branch, a distance of about 86 miles. This improvement will probably soon be extended, by means of a railroad, to some point on the Ohio and Erie canal, at or near Fort Wayne, a distance of about 85 miles.

Truly the State of Indiana is getting on rapidly. Her present prosperity is a wholesome one, and do not fear a repitition of the financial disasters that some few years since overtook her. The enormous amount of railways at present in course of construction and completed—comprising an extent of over 1300 miles—may well astonish a person not familiar with the resources of the State.

But when we consider that Indiana was admitted into the Union as late as 1816, and that she now contains a population of one million, we may cease to wonder.

Her immense coal and iron deposits are also just coming into notice, and are rapidly building up a trade, which will in a short time rival that of almost any other State.

Cotton manufactories are also springing up in various quarters, upon a large scale—caused by the cheapness and abundance of fuel, and the proximity of this fuel to the cotton plantations of the south. The people of the west and south—planters, capitalists and consumers—have at length discovered that it is cheaper to carry the cotton to the coal and provisions, where they are in such close proximity, and with cheap and ready means of communication, than it is to carry both cotton and provisions to an eastern water power, or an English coal field, and then to bring it back again, as manufactured articles, to be sold on the very ground upon which it was raised.

The capitol of Indiana, now a flourishing city of some 8000 inhabitants, and increasing 25 per cent. per annum, in 1821 was a wilderness. This might also be said of the whole State. The forests are disappearing rapidly before the axe of the eastern emigrant; and in their places spring up, as if by magic, fields of grain, that need but be seen to convince the most sceptical that the soil of Indiana is one of the best for agricultural purposes that we have in the Union.

The hardy and energetic population of this State have in them that indomitable perseverance and enterprise of a down-east Yankee that overcomes all obstacles; and the next thing with them, after the timber is cut from the ground, is a railroad to carry the production of this ground to a market, for they appear to be fully impressed with the idea that a market will not come to them.

One great secret of the construction of so large an amount of railway in a new State, is the cheapness with which they can be built. I have been surprised to learn the light cost of roads in this State, and I think I may with safety state that all the new roads now being constructed will not cost on the average $2,000 per mile to grade and bridge them. Some of them cost as low as $1,300 per mile, for their entire length.

The nature of the country, also, is such, with its long and gentle undulating swells, that easy grades and curvatures can be adopted, and they can consequently be worked very cheaply. The great abundance and cheapness of timber for the superstructure and repairs of the tracks, and of fuel for the engines is also of great assistance towards the cheap working of the roads.

The grading of the roads is, much of it, done by the people, through whose land it runs, and pay taken in stock. The timber is furnished by farmers along the line, and pay taken in stock, in fact everything, except the machinery and iron, is made or done in the State; and we may ere long expect to see even the machinery and iron manufactured by her own citizens and in their own State.

Is not Indiana a splendid specimen of the enterprise of the American people? In 1820 a wilderness! In 1850 with 1,000,000 inhabitants, 1300 miles of railway and 500 miles of canals.

Thirty years only to accomplish all this! What may we not expect of her in the next 30 years?

Ere three years have passed away, Indiana will make herself known to the world, if by no other means, by the whistle of her locomotives.

R.

We understand that a large portion of the stock in the Railroads of Indiana is taken by her own citizens and much of it paid for in labor and materials. This is a wise policy. Upon this system of operation,

in a country of productive soil like that of Indiana and other western States, the inhabitants may accomplish any improvement that their reasonable wants may demand, without incurring the embarrassments which usually attend the prosecution of extensive works where stock is paid for with money only. The dividends accruing from improvements made in this way remain in the country where the works are located, and constitute a part of the annual income of the inhabitants instead of being sent away to increase the wealth of other communities.

It is true that, in districts but sparsely settled, works of considerable magnitude cannot be accomplished in this way; but if the current of emigration continues to increase, it will not be long before Illinois, Wisconsin and Iowa will possess both money and labor sufficient to carry out a thorough system of improvement within their respective limits.

IMPROVEMENTS IN IOWA.

Desmoines Improvements.—We are indebted to Col. S. R. Curtis, chief Engineer on the Desmoines improvement, for his report containing estimates of the cost of that work from the mouth of the river to the Raccoon forks, a distance of 183 1-2 miles by the line of improvement. The entire cost is estimated at $1,191,907,31, and the quantity of land appropriated by Congress to the construction of the work is estimated at 1,233,800 acres.

In his report the Engineer says "we have under contract and in successful progress all the work necessary to carry slackwater navigation from the mouth of the Nassau Slough up to Keosauqua; a distance by the meanders of the river, of 50 miles, and by the line of improvement (the ten miles of canal cutting off 2 1-2 miles,) forty-seven and one half miles. Enough to show the character of the work, and enough to overcome some of the worst obstacles to the present navigation of the river. All this work can be completed next season, and I confidently rely on its being open for navigation in the spring of 1851."

The following extract from the Engineers report will impart to our readers in other States, a better idea of the utility and importance of the Desmoines improvement than anything we have seen published on the subject.

Having disposed of the survey and estimates the Engineer proceeds with the following interesting account of the work.

"The crest of the dam which turns the water into Coal Bank canal, is projected 309 79-100 feet above the water in the Mississippi river. The pool of the upper dam is 6 68-100 miles long, which carries us to Raccoon Fork. Allowing for the inclination of this upper pool three-tenths of a foot per mile, the water would be raised at the forks (Fort Desmoines,) 3 feet above the level of December 22, 1848; and, therefore, give from 4 to 5 feet in the two branches at Raccoon Fork.

I have thus detailed all the various works which I recommend as a combined series sufficient to secure slack water navigation "from the mouth of the Desmoines river to Raccoon Fork." The distance by the meanders of the river is two hundred and four miles and sixty-eight hundredths, and by the line of the improvement as designated by the blue line on the map, one hundred and eighty-three miles and

sixty-eight hundredths; showing a saving in distance by all the canals of twenty-one miles. Including the canal now nearly finished at the lower end of the improvement, we have proposed eight canals; the aggregate length of all being 27 miles.

There are 28 dams, and two intermediate locks on canals; making 30 locks on the line of improvement. All the canals are carefully located, and the centre cut or fill marked on stakes driven every hundred feet. The estimates have been made at higher rates than the average contract prices of the lower or first letting, because I apprehend an increase of the price of labor and provisions as the work progresses. I have given the items of the work at each point, so that prices may be tested by persons residing in the vicinity, and are familiar with the cost of stone, timber, &c.

In determining quantities, I have taken centre cuttings every hundred feet in the canal lines, and made allowances for greater quantities where the ground required on the side cuts. The material in the dams, has been determined by the application of the plan of crib dams with perpendicular *tumbles* applied to each particular location. As all the dams are on rock, I consider this plan (a drawing of which is here submitted,) entirely sufficient. There will be repairs needed frequently on any crib dam, but this plan is much stronger than those now erected for mills on the river, the highest of which (that at Thomas') has a lift of 7 feet, and stands very well. The lock walls are calculated for heights to admit navigation through them at high water; so that at low water, when the lift is greatest and the pressure most powerful; we have a superincumbent wall to aid in support of this pressure. Without taking into account this superincumbent wall, I have estimated the thickness of the masonry sufficient to resist the pressure of the greatest head that can occur when a pool below the lock is drawn off, so as to withdraw the influence of back water. By applying these principles I have estimated the average thickness of the walls at from 6 to 10 feet, and this average is to be so disposed of, as to increase the mass of masonry where the quoin post and other causes increase the pressure; and diminish the mass where the pool of the dam or other causes remove the pressure. I name this, because it is easy to augment the cost of a contract by increasing the amount of material; and it by no means follows that you increase the strength of work as you add to the material. A bridge, for instance, may be broken down by needless weight of timber, and a dam may be weakened by an increase of buoyancy and additional leverage by addition to the length of timbers. States loose thousands, yes millions, by needless waste of material, and it is here that ignorance can lavish and intelligence save the means applicable to this improvement. Engineering is a proximate science, but it constantly finds application of fixed sciences, which, properly understood and directed, secure the greatest economy in the work. It is the quantity more than the price that augments the cost, and it is in the use and calculations of quantities that States and Companies should fear the greatest loss. Few are competent to determine losses occasioned by errors in plan, and errors in the execution of plans; so that few can perceive the economy of science, when they do not understand the loss of wasteful experiments. I have estimated the *value* of the work of the Desmoines River Improvement as I think, liberally; its *cost* depends on

the management of the work. A cash letting, I have no doubt, could now be made below my estimate, but some items will always be suggested in the progress of a work which cannot be anticipated. If the Board had the available means to apply to the work, there are many important reasons in favor of its immediate construction. Provisions are cheap, and labor can be procured low. Material is also cheap, and other improvements have not been made, so as to require a large item to be set down for private damages. The settlement of the country would be accelerated by its early construction, and the work would secure a precedence which would be of great advantage in view of other works that are contemplated and certain to be made.

When completed according to the plan here proposed, it will be seen, that by the improvement the distance from the mouth to the Raccoon Forks, will be in round numbers one hundred and eighty-three and a half miles. The mouth of the river according to M. Nicolett is in N. Latitude 40° 21' and 43"—and in Longitude 91° 32' 30'. The Raccoon Forks are in Latitude 41° 34' 44"—and Longitude 93° 37' 7". These observations show that Fort Desmoines is 124 1-2 miles West, and 73 miles North of the mouth of the Desmoines; and the straight line from the mouth to Raccoon Forks is therefore 144 miles; which determines the difference between the straight line and the line of our improvement, to be 39 miles. The road generally travelled varies almost the same, and a rail road which may be located on the ridge parallel to the river, would not save much in the distance, compared with the river improvement. Steamboats pass the improved locks on the Kentucky river, Monongahela and Muskingum in less than eight minutes, the time therefore required for passing 30 locks on the Desmoines Improvement may be safely put down at 300 minutes, or 4 1-2 hours. Boats can run on the pools faster than they can on the Mississippi, and therefore I think at the rate of 15 miles an hour, which for the whole distance of pools and canals would be less than 13 hours; add two-thirds of an hour for casualties and you have my estimate of the time required for packet boats to pass from the mouth to the Forks—18 hours. Lockage time on such an improvement, is not lost time; because landing passengers and freight can always proceed during the same time, and business will assume such a form as to apply every moment of the lockage time to the business of commerce. The time therefore which will be required to pass this improvement, will be sufficiently reduced to compete with stage travel by the road, and the business and travel of the Upper Desmoines country will justify the employment of a line of packet boats between St. Louis and Fort Desmoines, as soon as the improvement can be completed. Steamboats of 500 tons burthen run on the Muskingum improvement where the locks are much smaller than those we are constructing on the Desmoines. Transportation of freight will therefore be cheaper, even if it is made to pay the same exorbitant tolls.

Without going into details of comparison, I estimate the freight on a barrel of flour from Raccoon Forks to the mouth of the Desmoines, at 25 cents a barrel, and on wheat 8 cents a bushel. Much depends on the amount of toll required to pay for work and keep up the improvement; and I make my estimate by comparing it with what it costs on public works of this kind elsewhere. By flat boats it would

cost about one half this sum, *i. e.*, 12 1-2 cents a barrel for flour, and 4 cents a bushel for wheat.

In time, and expense, and certainty; the plan of the Desmoines Improvement will compare favorably with any improvement in any State, and the more I consider the country which is likely to contribute to its commerce, the more certain I am of its great importance.

Let us suppose all the commerce within ten miles of the Mississippi will be hauled into Keokuk on wagons, and suppose ten miles from the lower end we appropriate only the business within 5 miles, and say ten miles back from the Mississippi, the improvement will carry off the surplus within 5 miles on each side. Go up to Raccoon Forks, and it is certainly fair to say this improvement, with its milling and manufacturing power and other inducements, will draw in the trade within 60 miles of Raccoon Fork. Indeed at 60 miles distance, there is no prospect of a rival to the Desmoines Improvement, and reference to the map will show that such is the distance to the Missouri, Mississippi and all other streams from Fort Desmoines; that we cannot doubt the reasonable prospect of this point being the centre of business for a country one hundred miles West and North West of it. But assuming 60 miles, and it now commands "this extent," we have a surface ten miles wide at the East end, 120 miles wide at the Forks, and, without counting anything for ten miles nearest the Mississippi, 134 miles long. To this area must then be added a semi-circle with 60 miles radius, which lies West of Fort Desmoines; which being computed gives for the surface drained by the Desmoines Improvement, 14,364 square miles, or 9,092,960 acres of land.

This is what I consider the country immediately attached and tributary to this river. There is a vast country North-west of Fort Desmoines, the *Cocteau des Prairies*, which will send a portion of its products down the upper branch of the Desmoines. The Desmoines is longer above Fort Desmoines, than below. It rises, according to M. Nicolett, in the *Shetek* lakes, latitude 44 degrees to 3'—Longitude 90 degrees 1' 30"; a point 138 miles North and 144 West, and, therefore, in a straight line 200 miles from Fort Desmoines. Some improvement will be made to secure an outlet for the products of this country, and the most natural one will be by the valley itself, which, according to M. Nicolett, is peculiarly adapted to water navigation. He says, "the hydrographical relations of the Desmoines, with the Mankato, St. Peters and Mississippi rivers, present a geographical incident of some interest. By referring to the map in latitude 43 degree 45'—Longitude 95 degree 12', (a point 161 miles above Fort Desmoines,) it will be seen that there is a lake very near the Desmoines named *Tchan Sketcha*, or Dry Wood lake: The Wutanwau river which is a tributary to the Mankato, that empties itself into the St. Peters, has its source in this lake. Now the tongue of land separating the Desmoines from *Tchan Sketcha* lake, is not more than a mile to a mile and a half broad, so that, were a canal cut across, the waters of the Desmoines would be made to communicate with those of the St. Peters." This not only shows that others have conceived the idea of improvement of the river above the Raccoon Forks; but the Shetek lakes and the connection with the St. Peters are, indeed, extraordinary incidents in favor of such an improvement. I have before also alluded to the proximity of the western terminus of the

Desmoines Improvent to the valley of the Nebraska; and here reiterate the possibility of a connection with that valley, which will draw in a share of the trade and travel of the far West. But excluding the advantages which we may derive from extended works, and confining ourselves to the surface I have suggested as the legitimate field which is destined to produce a commerce for this river, and the importance of the work is enough to command the united energies of the whole State. The county of Wayne in the State of Ohio, produced in 1840, according to the census of that year; 1,763,741 bushels of the various cerial grains, wheat, corn, rye, &c. It new no doubt produces more than 2,000,000 of bushels. The Desmoines country that I have here been considering, is decidedly richer and more capable of producing these grains than the county of Wayne; but taking this as a unit, then the area drained by our improvement would, with the same culture, produce 42,000,000 of bushels. This is only one item, to which may be added the wool, potatoes, hay, apples, manufactured articles; to say nothing of the coal, and other mineral products that will swell the annual wealth of the country and enlarge the commerce of the river. Settlements are now rapidly extending over all parts of this area, and such is the ease of preparing and cultivating the soil, that I hazard the opinion that ten years of labor in this section of country, will do no more towards perfecting a farming district, than can be effected by 40 years of the same amount of labor applied to a heavy timbered country like the county of Wayne. Counties on the Desmoines which commenced their settlements five years since, now send off a large surplus of cerial grains, besides a greater surplus of horses, beef cattle and hogs. These considerations demonstrate, that we cannot easily over estimate the products of this country or too soon prepare a market for its accumulating surplus.

An important item of commerce on this river will be derived from the mineral products of the valley to which I have before alluded. Stone coal appears to increase in quantity and quality as we proceed up the Desmoins. It is found in many places in bluff banks where it can be wheeled directly from the mine into the boat; and we may form some idea of the convenience of mining from the fact that with the imperfect arrangements now adopted, it is delivered at the mouth of the coal bank at Fort Desmoinse, at 2 1-2 cents per bushel. This is the bank belonging to Mr. Vaux, and I suppose is no more than a fair specimen, since I found the strata of coal in different places to vary from 2 to 8 feet in thickness, and this stratum at the Forks is about 5 feet thick.

As this Desmoines coal field is the farthest West, it is of great importance to the Mississippi valley, and it will be matter of interest connected with the proposed railroad to the Pacific, since this valley will probably offer the nearest and most convenient fuel to supply the destitute country west of the Missouri river.

Gypsum (Plaster of Paris) is found near Fort Desmoines in large cliffs of inexhaustible masses, and at present prices in St. Louis, it would be a profitable article of commerce if the improvement were completed. The magnesian lime stone, and the white, red and yellow sand stone which prevail in great abundance along the entire length of the improvement, are so excellent and easily prepared for building purposes, that they will also some day be carried to towns on the

Mississippi. The rough and rock head lands near the mouth, at "Cowpen's old mill," at "Raven Cliff," "Elk Bluff," and the beautiful mountain of "Red Rock,"—all noted land marks that have stood for ages as silent and gloomy sentinels, guarding the clear bright river that flows at their base—will be rent by the blast and broken by the workmen; and their fragments will be removed and erected into mansions which will adorn the citses on the Mississippi, and the valleys and hills of the surrounding country.

ART.—IX. COMMERCIAL LAW.

IMPORTANT DECISION TO COMMISSION MERCHANTS.

The New York Journal of Commerce reports the following important decision lately in the Supreme Court of that city. It but affirms old principles of law, but principles very important to be observed by commission merchants.

COURTS, TUESDAY—SUPERIOR COURT.—Before Judge Sanford—Isaac Milbank et als. vs. Alexander Denniston and others. Action to recover from defendants a loss sustained on the sale of flour, caused, as plaintiffs alleged, by the defendants to whom the flour was consigned having sold it at an improper period, and *contrary to the owner's instructions.* The plaintiffs are merchants in the city, and the defendants are members of a house doing business here and at Liverpool. In the month of June, 1846, the plaintiffs advised the branch of the house in Liverpool that they were about to consign two parcels of wheat to them, one of 500 barrels, by the Ship Nicholas Biddle, and another of 400 barrels by the Georgiana. In their letter so informing the defendants, dated the 25th of June, 1846, they said to them:

"You will please make no disposition until we give our wishes, per Caledonia, unless 22 shilling, in bond, be obtainable, in which case, if in your judgement you deem it our interest." On the 27th of June the plaintiffs wrote another letter to the defendants, in which they referred to the expected passage of the corn law in England, and its probable effect on the market, by admitting for sale a large quantity of corn, then in bond, and said: "We fear that the first introduction, for sale, may tend to lower prices. But that after stocks now in bond shall be reduced by consumption, &c., an improvement may ensue. We would, therefore, express our desire that these parcels may be withheld from the market until the operation of the new law shall have produced its result; though if 22s. in bond be obtainable, and you think our interest dictates such sale, please so dispose of it."

The Nicholas Biddle arrived at Liverpool on the 18th of July, nearly

at the same time that the defendants received the above letters. They caused the above wheat, which she brought, to be put in store, and on the 23d of August, wrote to the defendants in relation to it, saying that whether the wheat was sour or not, they feared it must be sold soon on account of its coming from New Orleans. In this letter they gave intimation of of their intention to sell it immediately. But on the 4th, 5th and 7th of August they did sell it, at 21s per barrel; and when they informed the plaintiffs of having done so, the latter expressed dissatisfaction at the defendants having acted contrary to their instructions.

For the defence, it was contended that the defendants had acted in conformity with their instructions; that the corn law had passed on the 26th of June, and that there was full time to ascertain the effect of its operation in August, when the flour was sold. It was also attempted to be shown that the then prospect of the coming harvest indicated that no higher price would probably be obtained for the flour if the defendant held it over. In reply to this, however, it was shown that about the time the flour was sold, or very shortly after, it was known that the potatoe crop in Ireland had failed.

The wheat, per the Georgiana, did not arrive in Liverpool until the middle of August, and this parcel the defendants held over until the beginning of October, when they obtained 29s. 9d. for it. The plaintiffs now allege that had the defendants held over the first parcel, as they did the second, in accordance with instructions, it would have brought the same price; and that by the defendants not doing so, the plaintiffs lost the difference between the two prices, for which they now claimed compensation. The plaintiffs also contended that independent of these instructions, the defendants had rendered themselves responsible by an undue want of diligence and skill in selling the wheat at the time they did.

The court charged the jury: This case was of great importance to the parties concerned, and which ever way the verdict might be, it must occasion a great loss. The court then detailed the facts of the case, and said that the plaintiffs claimed to recover on two grounds.—First—that they gave instructions which the defendants were bound to obey, and that in consequence of their not doing so, the plaintiffs sustained a great loss on the wheat sent by the Nicholas Biddle. The other ground is, that the defendants, irrespective of the instructions they received, did not, in the sales made in August, exercise that reasonable skill which they were bound to do. In the plaintiffs letters of June 25th and 27th, they instructed the defendants that the flour should not be sold until the operation of the corn law was known unless 22 shillings were got for it, and that the defendants thought it for the plaintiffs interest to sell it. These amounted to specific instructions, which the defendants were without any doubt bound to obey, although they had made advances concurrent with those instructions.

The first question for the jury was, did they obey those instructions? Were the sales made on the 4th, 5th and 7th of August, made before the operations of the corn law could be ascertained? This was a question which we are perhaps not as competent to decide as would be a jury in Liverpool, but we must decide on it from the best lights we have. It appears that the passage of this corn law had been long agitated, its passage was expected, and it did become a law on

the 26th of June. The defendants knew that a vast accumulation of bread stuffs were in bond, anterior to the passage of this act, and supposed that the passage of the corn law must throw a large amount of bread stuffs on the market and that prices must be depressed. Was then the opening of the ports of Great Britain the result which the parties contemplated in giving their instructions, or did they contemplate as a result of the corn law that, although the admission of large stocks to the market would depress prices, yet its ultimate effect, from creating an enlarged consumption, would cause prices to rally, and enhance the value of their wheat?

It was for the jury to determine in what view the defendants were bound to understand it. The defendants say they were to hold the property until the results of the corn law were known, and that they were known on the 4th of August, and that its effects were to reduce bread stuffs to a low price; and that the result being known, the plaintiffs meant they should make sale. It was for the jury to say, were the defendants as men possessed of reasonable skill in their business, warranted to think that these instructions mean a sale, on ascertaining the results of the corn law, no matter what might be the effects on the market.

If the defendants were warranted in so understanding their instructions, then they were justified in making the sale, and were not liable for any loss accruing to the plaintiffs. But if they were not warranted in so understanding their instructions, then they were responsible. There was no doubt that the defendants acted in good faith, which is shown by their own sales at the same time. But they were also bound to act with skill and diligence.

The jury would determine whether the defendants had disobeyed their instructions, or were they deficient in skill or diligence. In either of those cases they were responsible; but if they had not disobeyed their instructions, and acted with skill and diligence, then they were not liable.

Verdict for plaintiffs $11,136 37, being the amount claimed.

LEIN ON STEAMBOATS.

The New Albany Bulletin gives the following account of a decision, which was rendered last week by the Circuit Court of Floyd county, sitting in that city:

"The steamer Iroquois had been built and furnished at this point, the material and labor being furnished upon a credit by our mechanics; they of course retained a lien upon the boat for the value of thrir services and material. They were induced, however, to take accepted bills of exchange, which were dishonored. The boat was then seizèd under our Watercraft law. The Court has decided that the creditors by receiving the accepted bills of exchange, waived their lien and are without their remedy against the boat."

COMMERCIAL STATISTICS.—COMMERCE OF ST. LOUIS.

We have found, heretofore, so much difficulty in collecting and arranging the commercial statistics of St. Louis, that, we have, in making our statements in respect to the commerce of 1849, relied upon the labors of others. The following tables have been taken from the St. Louis Republican, and are, doubtless, as near the truth as they can be made in the present condition of our commerce. EDITORS.

FROM THE ST. LOUIS REPUBLICAN.

Below we annex a Table of Imports comprising nearly all the important, and many of the minor articles of Produce, Groceries, and Merchandize, received by the River, during the past year. This table we have compiled with due care and much labor, and from the most reliable sources of information. It will, no doubt, prove acceptable to all who take interest in statistical compilations, and particularly to those who feel interested in the growth and prosperity of our city. By reference to this table it will be seen that the receipts of many articles, viz: Lead, Hemp, Wheat, Corn, Flour, Barley, &c., were not so great in the year 1849 as the year previous, and on the other hand the imports of Provisions, Tobacco, Bale Rope, Hides, and other important articles, increase in a corresponding degree thereby, rendering the value of our agricultural imports nearly equal for the two years past.

As regards the Exports of Produce or Merchandize, we are possessed of no data that would give an insight into this important branch of the the trade.

IMPORTS OF PRODUCE &c. FOR EACH MONTH OF THE YEAR 1849.

ARTICLES.		January	February	March	April	May	June	July	August	September	October	November	December	Total
Apples	bbls.	556	641	3,372	1,416	619	140		219	204	2,235	9,045	2,136	20,583
Ale and Malt Liquors	bbls & hf bbls.	135	201	714	605	542	65	201	212	317	620	427	422	4,461
Bacon	hhds and casks.	46	260	2,961	5,723	3,647	633	779	1,040	1,010	232	294	255	16,880
Bacon	bbls and boxes.		27	251	1,531	428	113	137	603	98	32	11	14	3,245
Bacon	bulk pieces.		419	1,587	3,431	1,543	457	1,371	890	380	172	37		10,287
Beef	hhds and tierces.	9	179	1,259	751	259	451		491	173	3,065	4,287	355	10,687
Beef	bbls.	86	792	1,671	872	359	219			49	1,416	2,496	4,376	12,336
Butter	bbls.	80	162	270	461	181	111	124	82	203	94	414	142	2,324
Butter	firkins, kegs and jars.	168	182	610	952	1,277	359	218	335	976	1,000	1,090	644	7,811
Beans	bbls.	15	38	333	501	275	87	26	37	32	128	27	17	1,516
Beans	sacks.		12	143	732	346	119	150	12	14	327	218	192	2,265

TABLE OF IMPORTS—(*Continued.*)

Bagging	pieces.				197	154	56	95	35	115	253	122	52	1,079
Bale Rope, Hemp	coils.		185	1,947	1,755	1,269	1,155	1,452	1,954	5,004	1,892	1,769	574	19,065
Beeswax	packages.		13	266	183	100	24	17	28	47	69	87	19	853
Bran, Shorts, &c	sacks.		1,248	1,387	1,591	5,092	2,981	4,416	10,743	20,473	10,464	3,932	8,151	65,418
Brooms, straw	dozen.	248	662	1,182	1,624	985	217	537	862	572	414	2,432	1,288	11,023
B. W. Flour	bbls. hf's and sacks.	16	42	132	152	114	18				318	612	388	1,792
Buffalo Robes	packs.			37		21	69	2,499	627	1,215	17			5,585
Buffalo Robes	loose.					1,109	260	2,111			115			3,595
Barley	bushels.	24	622	9,110	11,361	4,160	1,446	314	928	5,604	14,502	43,416	976	92,463
Corn ,shelled	bushels.	4,390	9,678	33,648	41,603	32,244	25,488	30,044	33,244	28,480	15,924	20,878	10,812	287,433
Corn in ears	bushels.		1,500	2,250	1,000	1,800	500	2,300	900	2,500	3,200	1,250	700	17,900
Corn Meal	bbls and sacks.	39	79	128	266	89		116	45		174	81	60	1,077
Cider	bbls.	58	315	707	186	164	45	5	85	194	439	398	43	2,639
Cheese	casks and boxes.	406	633	1,496	1,207	611	127	138	203	2,033	5,937	3,620	2,993	19,464
Castor Oil	bbls.	46	83	69	41	63	9	72	11	75	265	85	56	875
Cotton	bales.		31	130	85	25			95	60	190	20	229	865
Cotton Yarns	bales and packages.	402	3,417	2,161	1,487	2,117	1,514	910	120	875	3,895	4,116	1,822	22,836
Candles	boxes.	40	590	718	505	440	200	365	50	128	750	2,460	1,125	7,361
Cranberries	bbls and boxes.		29	10	29	31				44	1,962	2,245	11	4,361
Castor Beans	bbls and sacks.		152	109	243	165	385			637	1,411	991	1,372	5,465
Copper	pigs.				31		47			35	101			214
Crackers	bbls.			100	125	75		35	20	45	120	40	29	689
Coffee	sacks.	3,612	10,719	6099	4,780	6,347	2,097	4,021	8,516	9,850	3,200	4,593	4,519	57,353
Dried Frait	bbls.	140	1,154	2,044	1,369	222	136	170	51	122	392	398	278	6,476
Dried Fruit	sacks.	322	2,230	4,627	2,211	1,412	289	163	234	469	1,563	3,934	1,311	18,765
Eggs	bbls and boxes.	24	53	273	435	135	79	80	70	98	158	232	94	1,737
Flour	bbls.	3,619	4,933	31,780	28,713	20,389	18,327	12,230	26,528	54,177	52,049	31,205	22,462	306,412
Furs	bales and packs.	11	41	147	430	268	54	155	241	122	20	11	24	1,524
Feathers	bales and sacks.	21	23	141	97	40	10	15	102	215	261	143	83	1,156
Flaxseed	bbls and sacks.	17	54	2,231	2,853	1,755	126	180	271	212	784	1,132	187	9,802
Glass	boxes and half boxes.	1,593	10,429	9,574	4,212	3,697	955	2,784	1,422	4,318	5,682	11,465	10,565	66,696
Ginseng	bbls and sacks.	14	39	22	102	81		14	5	41	19	28	9	374
Grease	bbls and casks.	81	207	306	226	131	49			24	117	128	225	1,494
Gunnies	bales and bundles.	398	184	673	341	211	15	287	309	784	211	413	657	4,403

TABLE OF IMPORTS—(*Continued.*)

Hides	dry and green.	288	760	12,790	14,528	8,998	2,145	1,907	3,261	3,830	3,928	11,468	4,999	64,902
Hemp	bales.		138	2,294	11,204	9,917	3,414	2,365	6,462	7,108	2,304	851	233	46,290
Hops	bales.	134	126	27	45	72	14			54	165	120	26	783
Hay	bales.	64	295	800	748	476	102	554	1,346	1,177	1,350	2,584	1,120	10,616
Iron, pig	tons.	216	248	484	440	435	135	315	473	131	240	1,309	657	5,143
Lead	pigs.		2,251	41,047	78,563	64,390	37,106	58,656	64,480	53,211	86,655	85,335	18,599	590,293
Lard	tierces.	430	1,003	6,040	2,587	856	127	58		219	338	1,649	2,494	15,801
Lard	bbls.	2,137	4,066	26,334	10,703	2,191	336	274	1,290	995	833	2,466	6,651	58,279
Lard	kegs.	1,292	1,928	4,102	3,662	1,227	316	522	358	1,121	518	633	3,171	18,845
Leather	boxes and bundles.	233	276	1,517	904	973	110	318	179	316	212	319	911	6,268
Lemons	boxes.	601	1,339	1,136	1,522	121				116	315	1,675	288	8,413
Linseed Oil	bbls.	25	317	235	180	101	45	62	15	147	248	262	297	1,936
Molasses	bbls.	352	3,156	5,327	4,635	3,007	2,899	1,023	853	1,883	1,393	2,247	2,439	29,214
Moss	bales.	93	38	74	181	212	34			72	217	69	28	1,018
Malt	bbls and sacks.			164	296	126					100	204		890
Mackerel	bbls.	240	587	738	856	467	108	184	55	398	1,195	988	621	6,467
Mackerel	half bbls and kitts.	129	397	449	532	281	304	79		218	782	314	173	3,658
Nails	kegs	2,073	12,766	9,673	5,862	3,422	2,705	1,050	1,420	4,212	18 459	9,162	7,763	76,567
Oats	bushels.	2,574	5,846	9,130	28,676	12,728	10,350	17,564	49,480	36,034	38,049	34,412	7,448	252,291
Onions	bbls.			81	130	87			116	112	491	113		1,136
Onions	sacks.			232	299	279	487		44	1,637	1,868	2,546	52	7,404
Oranges	boxes.	210	1,475	1,697	842	526	100				52	211	91	5,207
Oils assorted	bbls.	131	190	282	304	214	39	105	52	421	527	238	145	2,648
Oakum	bales.	167	339	260	409	116	14	210	43	196	210	192	38	2,594
Pickled Hams & Sh'lders csks & bbls.		162	1,445	4,045	2,639	924					38	142	1,169	10,564
Paper	bundles.	1,276	3,702	5,767	3,796	2,879	3,874	4,211	1,837	3,896	14,796	8,212	3,036	57,282
Powder	kegs.	1,375	827	510	1,049	900	125	100	1,000	640	1,400	900	1,872	10,698
Potatoes	bbls and sacks.	209	1,249	3,468	9,638	4,745	143	189	38	5,876	6,858	7,935	474	41,222
Pork	bbls.	5,886	9,624	39,687	22,052	5,167	996	1,677	3,709	896	1,577	4,176	18,415	113,862
Pork	boxes.	100	639	960	612							96		2,407
Pork, in bulk	pieces.	1,863	22,506	262,029	186.410	1,598	457				720	1,224	5,869	482,676
Pork, in bulk	lbs.		55,000	374,000	145,200	21,400							160,000	755,600
Peltries skins, &c.	bales.	18	292	583	824	447	118	36	15	41	29	143	95	2641

TABLE OF IMPORTS—(*Continued.*)

Pitch	bbls.		25	120	95	100		40	21	35	71	212	117	836
Rice	casks.	57	153	378	172	223	20	23	70	210	214	290	155	1,965
Rosin	bbls.			100	360	416		68	21	185	150	112	407	1,819
Raisins	boxes and half boxes.	8,688	2,819	1,116	773	1,187	400			974	562	2,422	2,114	16,155
Rye	bushels.	30	82	561	1,122	867	476	132	404	362	690	772	346	5,844
Salt	bbls.	364	744	1,419	2,136	1,112	3,339	778			2,096	80,63	3,592	23,553
Salt	sacks.	3,016	18,893	11,080	31,412	21,735	14,683	40,636	20,066	28,416	21,180	47,270	23,322	291,709
Sugar	hhds.	422	1,945	5,602	4,352	2,445	582	403	1,400	1,263	3,595	1,527	4,085	26,501
Sugar	boxes and bbls.	86	133	1,415	1,132	1,749	239	145	753	291	241	132	1,030	7,348
Soap	boxes.		730	955	682	500	160	75	600	181	500	825	460	5,668
Saleratus	casks and bbls.	44	205	365	180	218	37	10	58	116	92	72	36	1,438
Tobacco, leaf	hhds.	1		118	432	1,637	889	1,566	2,137	2,301	571	199	28	9,879
Tobacco, manufactured	boxes.	86	722	1,535	714	419	265	160	490	117	241	597	558	5,904
Tobacco, Havana	bales.		304	300	260	60		40	100	10	200	42	227	1,543
Tallow	casks and hhds.	17	62	119	111	82	12		39	41	140	263	87	973
Tallow	bbls.	40	78	130	123	32	7			18	62	104	37	631
Tar	bbls.		90	513	150		20	207		125	352	668	414	2,539
Tar	kegs.			403	380	150		374	140	911	200	395	1,150	4,103
Turpentine	bbls.	126	380	312	423	145		85		110	80	124	150	1,935
Vinegar	bbls.		43	175	215	74	50	141		314	102	15	294	1,423
Wool	bales.	4	15	17	87	37	140	252	234	182	174	86	46	1,274
Whisky	bbls.	547	1,268	5,185	4,974	2,848	1,327	1,915	1,807	2,652	2,765	2,626	1,171	29,085
Wheat	bushels.	7,518	16,782	201,814	189,648	95,634	79,802	65,344	171,826	305,475	255,197	331,528	71,967	1,792,535

Estimated value of thirty-one of the leading articles of Produce received at the port of St. Louis, for the years 1848 *and* 1849, *commencing on the* 1st *of January and ending on the* 31st *of December, with total valuation.*

ARTICLES.	1849. Aggregate Amount.	Average Rate.		Estimated Value.	1848. Aggregate Amount.	Average Rate.	Estimated Value.
Tobacco leaf,	hhds, 9,879	$50 00	per hhd	$493,950 00	9,044	$45 00	$406,980 00
do. manufactured,	boxes, 5,904	15 00	per box	88,560 00	5,446	13 29	71,887 00
Hemp,	tons, 9,258	110 00	per ton	1,018,380 00	9,454	85 00	802,590 00
Lead,	tons, 16,428	85 40	"	1,402,951 20	24,200	74 00	1,790,800 00
Flour,	bbls, 306,412	4 20	per bbl	1,286,930 40	387,584	4 25	1,637,332 00
Wheat,	bush, 1,792,535	80	per bush	1,434,028 00	2,194,789	70	1,526,352 30
Corn,	bush, 305,333	31	"	94,653 23	699,693	28	195,914 04
Oats,	bush, 252,291	28	"	70,641 58	243,700	21	51,177 00
Barley,	bush, 92,463	70	"	64,724 10	111,003	38	42,181 14
Rye,	bush, 5,844	40	"	2,387 60	9,075	35	3,176 25
Beans,	bush, 9,078	40	"	2,731 20	14,196	40	5,678 40
Beef,	tierces, 10,687	9 00	per tierce	96,183 00	9,369	8 50	79,636 50
Do.	bbls, 12,336	8 00	per bbl	98,688 00	7,953	6 50	51,411 75
Pork,	bbls, 133,862	8 00	"	920,896 00	96,618	7 50	724,635 00
Do. bulk,	lbs, 9,651,656	2½	per lb	241,291 40	8,454,000	2½	211,250 00
Lard,	tierces, 15,801	17 50	per tierce	276,517 50	6,579	17 50	113,132 50
Do.	bbls, 58,270	13 00	per bbl	757,510 00	67,329	13 50	908,941 50
Do.	kegs, 86,845	3 50	per keg	64,957 50	14,180	3 50	49,630 00
Bacon,	casks, 16,880	30 00	per cask	580,400 00	25,820	28 00	722,960 00

ESTIMATED VALUE OF PRODUCE—[*Continued*]

Do,	bbls & boxes, 3,245	12 50	pr box & bbl	40,562, 50	3,775	14 00	52,858 00
Pickled hams & sho'ders,	ca. 10,564	14 56	per cask	153,178 00	7,490	14 00	104,860 00
Whisky,	bbls, 29,085	7 50	per bbl	217,997 50	29,758	6 80	201,454 40
Tallow,	lbs, 721,460	6¢	per lb	48,698 55	483,920	6¢	31,454 80
Butter,	lbs, 1,255,280	8¢	"	106,698 80	1,106,240	9	99,561 60
Bale Rope,	coils, 19,065	7 25	per coil	142,211 25	12,633	7 25	91,589 25
Bagging,	pieces, 1,079	14 00	per piece	15,106 00	1,084	14 00	15,176 00
Potatoes,	bush, 103,500	30	per bush	31,050 00	157,697	30	47,309 10
Onions,	bush, 21,350	50	"	10,675 00	22,481	35	7,868 35
Grease,	lbs, 351,851	3¢	per lb	12,314 78	201,350	3¢	7,092 25
Hides, dry & green,	68,902	1 80	each	124,033 60	62,097	1 60	99,305 20
Hay,	tons, 920	16 00	per ton	14,720 00	845	12 00	10,144 00
Flaxseed,	bush, 26,500	85	per bush	22,525 00	32,460	80	25,968 00
Feathers,	lbs, 62,340	28	per lb	17,455 20	51,960	20	10,272 00
Brooms,	dozens, 11,023	1 60	per doz	17,636 80	6,713	1 25	8,391 25
Dried Fruit,	bush, 63,102	90	per bush	56,791 80	47,605	35	40,464 25
Green Apples,	bbls, 20,583	1 50	per bbl	30,874 50	12,628	1 50	18,792 00
Wool,	bales, 1,274	22 50	per bale	28,665 00	904	22 50	20,330 00
Total estimated value,	- - - - -			$10,087,327 99			$10,288,455 82

Difference in favor of the year 1848, $201,127,34.

Imports into St. Louis, for the years 1841, 1845, 1846, 1847, 1848, *and* 1849, *commencing January* 1*st, and ending December* 31*st.*

ARTICLES.		1849.	1848.	1847.	1846.	1845.	1844.
Apples green	barrels.	20,533	12,628	21,28	3,728	6,314	7,233
Beef	tierces.	10,687	9,369	5,735	000	000	000
Beef	barrels.	12,336	7,866	4,720	1,716	5,264	4,280
Bacon	casks.	16,880	29,423	14,425	11,803	6,180	19,225
Bacon	bbls and boxes.	3,245	6,622	1,289	1,618	149	484
Butter	bbls.	2,324	2,266	1,084	823	558	618
Butter	kegs and jars.	7,811	8,131	4,199	3,940	3,420	3,099
Brooms	dozen.	11,023	6,744	000	000	000	000
Beeswax	packages.	853	730	1,557	1,122	950	1,174
Bagging	pieces.	1,079	1,084	1,442	3,243	4,217	3,120
Beans	bbls.	1,516	3,337	5,337	4,370	2,091	1,518
Beans	sacks,	2,265	2,003	4,134	2,199	1,320	1,389
Bran shorts, &c	sacks.	65,418	63,726	000	000	000	000
Barley	bushels.	92,463	111,003	114,680	20,277	32,231	8,487
Buffalo robes	packages.	5,585	15,188	000	000	000	000
Buffalo robes	loose.	3,595	2,227	7,782	16,717	14,75	33,670
Corn	bushels.	305,338	639,693	1,016,318	688,649	107,927	56,720
Cheese	casks and boxes.	19,464	8,417	12,386	11,232	8,822	9,337
Cider	bbls.	2,638	1,180	336	421	763	550
Coffee	sacks.	67,353	78,842	77,767	65,128	46,204	38,721
Cotton yarns	packages.	22,836	11,480	12,762	13,260	10,756	5,354

TABLE OF IMPORTS—(*Continued.*)

Flour	bbls.	306,412	387,314	328,568	220,457	139,282	88,881
Furs	packages.	1,524	1,194	2,148	3,011	2,535	973
Feathers	sacks.	1,156	856	384	768	816	471
Flaxseed	bbls and sacks.	9,802	12,257	4,992	3,693	2,136	2,741
Ginseng	bbls and sacks.	374	152	267	77	54	138
Glass	boxes.	66,696	19,834	18,722	24,630	23,563	4,697
Hemp	bales.	46,290	47,270	72,222	33,853	30,997	59,292
Hides	green and dry.	68,902	62,697	71,877	63,396	70,102	55,572
Iron bar, sheet &c	tons.	28,562	16,341	15070	2,484	2,228	1,981
Iron pigs	tons.	5,143	4,463	2729	2,326	1,480	1,469
Lead	pigs.	590,293	704,718	749,128	730,829	750,877	595,012
Lard	tierces.	15,801	6,579	2,150	000	000	000
Lard	bbls.	58,279	67,339	32,021	28,462	76,52	12,293
Lard	kegs.	18,845	14,180	8,595	14,730	6,659	12,999
Whiskey	bbls.	29,085	29,758	22,239	29,882	29,788	24,510
Liquors	bbls and casks.	13,480	10,510	6,727	5,388	4,970	4,002
Malt liquors	bbls.	4,461	4,282	5,628	7,927	4,212	2,169
Lead, white	kegs.	6,821	2,247	5,256	3,466	1,526	1,973
Molasses	bbls.	29,214	21,948	21,554	14,996	11,788	3270
Nails	kegs.	76,567	49,596	22,589	28,073	21,587	23,703
Oils, linseed	bbls.	1,936	1,609	485	826	695	140
Oils Castor	bbls.	875	510	332	95	78	108
Oils assorted	bbls.	2,648	1,478	1,292	1,281	1,867	968
Onions	bbls and sacks.	8,540	10,804	4,252	5,215	2,111	3,806
Oakum	bales.	2,594	816	1,072	1,378	1,104,	681

TABLE OF IMPORTS—(*Continued.*)

Oats	bushels.	252,291	243,700	202,365	95,612	16,112	16,480
Pork	bbls.	113,862	97,662	43,692	48,981	15,702	29,945
Pork, bulk	lbs.	9,651,656	8,454,000	285,797	630,765	261,754	136,333
Potatoes	bbls and sacks.	41,222	77,638	26,928	30,604	14,494	21,272
Peltries	packages.	2,641	1,889	2,694	1,266	1,917	1,540
Rice	tierces.	1,965	948	762	916	869	670
Rye	bushels.	5,844	9,075	7,566	5,282	3,054	1,161
Rope, hemp	coils.	19,065	12,633	10,798	5,123	8,890	12,525
Salt	bbls.	23,553	38,800	41,380	58,948	21,157	27,736
Salt	sacks.	291,709	204,744	106,392	177,724	112,684	124,234
Sugar	hhds.	26,501	26,116	12,671	11,608	10,259	9,070
Sugar	bbls and boxes.	7,348	14,812	20,111	5,752	1,516	1,630
Tallow	casks.	973	398	112	303	175	132
Tallow	bbls.	631	797	2,217	1,114	688	810
Tar	bbls.	2,539	5,027	2,217	1,558	1,630	528
Tar	kegs.	4,103	2,360	5,656	5,776	4,128	2,011
Tobacco	hhds.	9,879	9,044	11,015	8,588	11,564	9,707
Tobacco, manufactured	boxes.	5,904	5,446	6,548	7,903	7,777	7,380
Tea	chests.	3,281	2,384	3,028	3,049	2,086	1,800
Vinegar	bbls.	1,423	606	1,233	1,086	1,082	1,373
Wheat	bushels.	1,792,535	2,194,789	2,432,377	1,838,926	971,025	720,663

HOGS.

Owing to the lateness of the season, very little was done in the packing business until about the 1st of December. The opening price for the best description of hogs was $2,25 to $2,50, which continued to be the range of the market until about the close of the year, when a slight advance was obtained. Several thousand head going off at 1-8 and 1-4 above these figures, and for the past ten days, or up to the 10th of the present month, $2,75 was the current rate for No. 1, and in a few instances as high as $3 was paid. The present packing season commenced fully a month later than the previous one, and it has been the shortest ever known, lasting only about six or seven weeks; commencing on the 26th or 28th of November, and closing, it may be said, with the middle of January—for even at the present writing, (10th of January) the principal business is over, and a majority of the houses have suspended operations for the season.

Upon inquiry at the different establishments in this city—sixteen in number—we find the whole number of hogs packed, up to the 10th of January, to be 115,253 head, making an increase already of 32,753 head over the entire number packed during the season of 1848-'49.

Below, we append a statement of the hogs and cattle cut and packed at the different houses in this city, from the 20th of October, 1849, to the 10th of January, 1850. This statement embraces a few hogs (say four or five thousand head) which were slaughtered for larding and other purposes, before the commencement of the regular packing season; but as they come legitimately within the provision business of the city, we include them in our table. The number of cattle slaughtered for packing has been quite small, but our tables show a slight increase over the previous season's business.

The following estimate of the number cut and packed from the 20th of October to the 10th of January, we have obtained from the proprietors of each establishment, and it may be relied upon as being entirely correct.

Houses.	*Hogs.*	*Cattle.*
M. Steitz,	2,800 head	——
McFaul's,	3,300 "	——
Wm. Fitzgerald,	3,260 "	——
Joseph J. Bates,	4,500 "	500 head.
Whittaker & Palmer,	4,776 "	——
R. Taylor & Co.,	4,900 "	——
G. & C. Bayha,	6,247 "	——
J. Gibson & Co.,	3,500 "	——
Wm. Risley & Son,	6,000 "	1,378 head.
John G. Law & Co.,	7,000 "	——
H. Ames & Co.,	14,500 "	280 head.
R. McAlister,	13,670 "	——
Clarkson & Co.,	19,000 "	——
John Sigerson,	19,500 "	——
Two small packers,	2,300 "	——
Total,	115,253 "	2,158 head.

Comparative Table, showing the number of Hogs packed in this city for the past four years—last year not completed.

In 1846, season closing in	1847	30,498	head.
1847,	1848	63,924	"
1848,	1849	82,500	"
1849,	1850	115,253	"
Total,		292,175	"

Total amount of beef packed in this city for the past two seasons—last year not completed—

In 1848, season closing in	1849,	2,148	head.
1849,	1850,	2,158	"
Total,		4,306	"

From the foregoing statement it will be seen that the slaughtering of hogs in the city is rapidly increasing, and has risen from 30,498 in 1846—'47, to 115,253 the present season, which is not yet completed and doubtless, at the close the total number will reach one hundred and twenty or twenty-five thousand head. At the close of the market on the 10th of January, the weather was unfavorable, being too warm for either slaughtering or packing, and this, together with the advanced rates caused a partial, and in several instances a total suspension of operations. The pens were, also, comparatively bare of stock, and in order to complete the season's business, several packers were willing to purchase at $2,75, and for extra hogs perhaps as high as $3 could be obtained. The high price of cattle throughout the season has deterred packers from entering extensively into the business of packing beef, and up to the close of our inquiries (the 10th of January,) we find the total number cut and packed to embrace only 2,158 head, but even this small amount shows a slight increase on the number put up during the previous season.

At the commencement of the past year the market opened for No. 1 cattle at $3,25 to $3,50, but before the close of the month of April prices had advanced to $4,50 *a* $5, and for a short time even higher rates were paid for shipment. Throughout the entire summer months the market was but moderately supplied, and rates continued firm at $4 *a* 4,50, but about the 1st of October there was a decline in the New Orleans market, which affected our own so far as the shipping demand was concerned, and prices from that time to the close of the season ruled at $3,25 *a* $3,75. No. 1 cattle not going above or below this range. All packed during the season were bought at $3 *a* $3,50 per 100 lbs. Of the entire amount of pork packed in this city this season it is estimated that fully one-third is for the European markets, and about one-third of this amount embraces what is termed singed meat, the remainder, or say 75 *a* 80,000 head of hogs has been thrown into barreled and dry salted meats and into lard.

THE LUMBER TRADE.

From the Report of the Lumber Master to the City Register, it appears that the following amounts of lumber, shingles, laths and staves, were received at the landing during the year 1849:

THE LUMBER TRADE.

1849.	Lumber.	Shingles.	Laths.	Staves.
January, - - -	125,331 ft.	100,000	———	———
February, - - -	161,402	340,000	———	———
March, - - -	418,124	230,000	———	53,000
April, - - -	1,947,603	1,818,000	140,000	143,000
May, - - - -	2,737,679	976,000	———	136,000
June, - - - -	3,675,967	106,500	———	56,000
July, - - - -	1,455,825	900,000	150,000	51,547
August, - - -	2,389,838	240,000	———	115,000
September, - - -	3,938,113	660,000	390,000	298,000
October, - - -	1,684,896	———	604,500	301,800
November, - - -	4,480,292	2,021,000	———	94,450
December, - -	1,173,580	653,000	———	87,000
Total, - -	24,188,651	7,334,500	1,290,500	1,435,797

5,000,000 feet estimated by Lumber Master not measured.

8,400,000 " " of pine, oak, &c., cut by the fourteen city mills for the year 1849.

37,588,651 feet total amount of lumber for 1849 received from foreign sources, and manufactured in the city of St. Louis.

Total amount of Lumber received in 1849, - - - 24,188,651 feet
Total " " " 1848, - - 22,137,209 "

Increase for 1849, - - - - - 2,051,442 feet

Total amount of shingles received in 1849, - - - 7,334,500
Total " " " 1848, - - - 15,851,500

Decrease for 1849, - - - - - 8,517,000

Total amount of laths received in 1849, - - - 1,290,500
Total " " " 1848, - - - 2,598,915

Decrease for 1849, - - - - - 1,308,415

Below we annex a statement of the imports of lumber, shingles and laths for the past five years;

	Lumber.	Shingles.	Laths.
1845 - -	10,389,382	13,927,500	2,328,700
1846 - -	13,169,332	10,652,000	1,807,700
1847 - -	16,917,850	13,098,800	2,817,000
1848 - -	22,137,209	15,851,500	2,598,915
1849 - -	24,188,651	7,334,500	1,290,500
	86,802,424	60,867,300	10,842,815

A table showing the monthly arrivals, of steamboats, barges, flats, and keels, with their respective tonnage, Harbor Master's fees, &c., for the years 1848 *and* 1849.

	Arrivals of steamboats and barges		Keel and flat boats		Tonnage o steamboats and barges		Wharfage.		Harbor Masters fees.		Haip into the city treasury	
	'48.	'49.	'48.	'49.	'48.	'49.	'48.	'49.	'48.	'49.	'48.	'49.
January,	129	52	12		21,536	11,954	$1,398 80	$597 70	$111 90	$47 81	$1,276 90	$530 54
February,	141	98	25		24,872	23,614	1,329 60	1,180 75	106 36	106 46	1,223 24	1,226 44
March,	238	358	31	26	25,492	75,835	2,324 60	3,849 75	185 96	307 98	2,118 64	3,604 37
April,	437	388	41	27	89,678	85,123	4,569 90	4,384 65	365 59	350 77	4,204 31	4,004 23
May,	285	262	20	8	63,528	62,756	3,213 90	3,803 30	257 11	264 26	2,956 79	2,940 12
June,	246	264	16	11	55,502	58,125	2,799 10	2,924 25	223 92	231 56	2,586 18	2,663 04
July,	332	157	12	7	73,427	38,358	3,700 35	1,935 50	296 02	154 34	3,404 33	1,780 66
August,	299	213	22	12	58,635	43,323	2,964 25	2,182 12	237 14	172 75	2,727 11	1,986 70
September,	411	312	40	7	79,705	60,865	4,063 75	3,052 75	323 10	240 58	3,738 65	2,766 77
October,	325	287	44	3	59,768	57,120	3,205 40	2,859 50	256 43	228 76	2,948 96	2,630 74
November,	358	336	66	46	63,121	61,784	3,275 55	3,187 70	262 04	254 17	3,013 54	2,922 98
December,	267	248	19	19	53,049	55,034	2,685 95	2,783 20	214 87	215 68	2,471 08	2,474 82
Total, 1848	3468		332		688,213		$35,531 15		$2,842 44		$32,688 71	
Total, 1849		2975		166		633,892		$32,246 20		$2,575 62		$29,531 51

Comparative arrivals of Steamboats at the Port of St. Louis, from New Orleans, Cairo, the Ohio, Upper Mississippi, Illinois, and Missouri rivers, and all other points during the years 1846, '47, '48 *and* '49.

	New Orleans.				Ohio River.				Ills. River.				Up. Miss.				Mo. River.				Cairo.			Other points.			
	'46	'47	'48	'49	'46	'47	'48	'49	'46	'47	'48	'49	'46	'47	'48	'49	'46	'47	'48	'49	'47	'48	'49	'46	'47	'48	'49
January,	15	22	29	13	8	8	11	5	3	9	26	14	5	4	24	2	7	—	1	—	11	13	7	15	5	16	12
February,	33	15	26	32	26	16	12	18	42	8	33	19	31	8	20	4	1	1	1	3	10	9	5	21	6	13	17
March,	25	48	53	38	26	28	38	58	40	85	72	82	36	41	48	79	10	14	19	44	3	16	10	21	13	29	27
April,	27	77	47	36	35	41	43	65	44	91	67	63	55	74	76	117	20	32	33	63	1	18	9	14	12	14	21
May,	59	93	22	22	65	61	37	38	80	106	82	42	115	128	67	73	43	63	38	50	19	7	14	10	20	36	18
June,	36	49	30	19	52	37	44	33	51	60	53	56	98	91	75	77	47	48	39	43	8	13	11	11	13	16	22
July,	23	67	30	21	30	41	48	13	32	58	55	33	60	81	51	58	32	45	34	19	19	5	6	16	19	28	10
August,	32	24	26	17	44	37	55	16	32	41	71	62	56	51	75	67	29	32	40	28	10	16	8	18	24	27	14
September,	30	28	48	31	37	30	42	33	15	45	64	87	46	57	66	77	27	23	39	41	18	21	11	16	28	64	19
October,	32	22	51	26	48	67	43	40	41	57	70	70	61	80	82	87	18	31	36	34	18	32	12	37	34	72	18
November,	31	32	49	27	24	42	48	43	30	60	63	93	56	69	66	109	14	16	42	21	13	16	14	27	18	38	15
December,	49	23	33	31	27	22	8	39	36	38	34	65	44	33	47	61	8	9	5	9	16	28	15	26	12	43	24
Total,	395	502	426	313	420	430	429	401	446	658	690	686	668	717	697	806	256	314	327	355	146	194	122	232	202	396	217

GEOLOGICAL SURVEY.

It affords us no small degree of gratification that this important measure has at length been brought forward in the Senate of the United States; and we have reason to hope that it will receive the sanction of the National legislature.

Missouri, we believe, is the only State that has memorialized Congress in behalf of this measure; and hence we expected that it would have been claimed and brought forward by some one of her senators or representatives. Yet, we do not regret that it has fallen into the hands of the able and influential Senator from Illinois, whose zeal for the great interests of the west is a sure guarranty for his most active exertions in its behalf.

We are furthermore pleased that the bill proposes to embrace all the States containing public lands: this is just, and the more gratifying to us, perhaps, from the consideration that while we have been laboring in behalf of our own State, whatsoever benefits may flow from our humble efforts will be shared in common by other States of the west and south.

IN THE SENATE OF THE UNITED STATES,

DECEMBER 27, 1849.

Agreeably to notice, Mr. Douglass asked and obtained leave to bring in the following bill; which was read twice, referred to the Committee on Public Lands, and ordered to be printed.

A BILL

Granting to each of the States in which the public lands are situated, a quantity of land equal to one township in each land district, to aid in making a geological suavey of such States respectively.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby granted to each of the States of the Union, in which public lands are situated, a quantity of land equal to one township in each land district in each of said States, to aid in defraying the expenses of a geological survey of said States, under the direction of their respective Legislatures; said lands to be selected by the Governors of said States respectively in legal subdivisions, according to the United States surveys within their respective limits: *Provided*, That said lands and their proceeds shall be faithfully applied by the legislatures of said States respectively to a scientific exploration and geological survey of the territories within their respective limits, and to the preparation and publication of suitable reports, maps, and drawings, and to no other purpose whatsoever: *And provided further*, That each of said States shall present to each of the other States and Territories of this Union at least three copies of all such reports, maps, and drawings, and also to Congress at least fifty copies of the same, for the use of the Government of the United States and the Smithsonian Institution.

THE ARKANSAS LEAD MINES.

We find the following account of the lead mines, near Little Rock, in the Arkansas State Democrat. We regard this as among the most interesting discoveries of mineral that has been made in the Valley of the Mississippi; and trust that it will be the means of directing the attention of scientific men and capitalists to the long neglected mineral wealth of this region.

The neglect of these mines, for so long a time after their existence was known, is a strong argument in favor of a geological survey of all the new States. And the employment of a graduate of the school of mines at Freiburg, as mining Engineer, furnishes an argument in favor of the establishment of a school of mines in our own country.

THE MINES NEAR LITTLE ROCK.

Traditions of successful expeditions of French and Spanish treasure hunters up the Arkansas river: indicate a large extent of country around the locality of these mines to be rich in valuable ores. Gold, silver, lead, and precious stones are said to have been found in this region by the earliest explorers. How much truth there may be in these statements cannot be known until the country is thoroughly explored and minutely examined; but the various localities where these treasure-seekers have left the most evident marks of their presence—the ruins of furnaces, the remnant of crucibles, and the numerous "old diggins"—bear convincing testimony of extensive explorations, in years long past; but the results of these expeditions have been lost in the lapse of time, or have come down to the present generation in so vague a garb as to beget but little confidence in the reality of the gorgeous livery with which these traditions were invested by the earliest settlers.

Until comparatively a few years since, not a single discovery of any valuable mineral had been made throughout this entire region, and the remembrance of those traditions had become nearly obliterated, when, they were, in a measure, revived by the discovery of mineral on the lands now worked by the South-west and Arkansas Mining company. An analysis of this mineral proved it to be argentiferous lead ore. Notwithstanding this discovery, the locality was permitted to be without a thorough examination for a period of fifteen years; and it was not until a year or two since that its productiveness and immense value were demonstrated. In the Spring of 1848, Mr. O. D. Moulton, one of the new company, a miner from Wisconsin, examined this locality, and believing it to promise a fair remuneration for his labor, undertook to explore it. The result fulfilled his highest anticipations. After a few weeks labor he discovered a vein from which he subsequently raised about fifty tnousand pounds of ore. This success gave an increased impetus to the enterprise; and in the Fall of the same year, the mammoth vein, upon which the company are now working, was opened. With only four hands, there were raised, in four months,

rom this deposit, about four hundred thousand pounds of ore ! crowning the exertions of the few individuals engaged in this undertaking, with a measure of success rarely equalled in the history of lead mining in the United States. In addition to this amount large quantities have been raised from a number of shafts sunk near where the mammoth vein was first struck.

Two or three large shipments of this ore have been made to Liverpool, England. Of these shipments, a lot of about one hundred tons sold at prices ranging from £18 to £21 per ton. Lead made from the ore at the Mines, brought £37,10s. per ton. These rates are about treble the value of any other lead ore found in the United States.

The assay of the first shipment of ore to Liverpool was as follows:

"The Pig lead produces one hundred and twelve ounces silver to the ton of lead.

Lot ore 3 tons 4 cwt. contains 77 per ct. lead, which produces 64 oz. silver to the ton of lead.

Lot ore 8 tons 17 cwt. contains 72 per ct. lead, which produces 44 oz. silver to the ton of lead."

The following is the result of several assays made at New Orleans by W. P. Hort, of the United States Mint.

"No. 1. Lead ore, (galena, sulphuret of lead,) resembling that found in such abundance in Illinois—lead 85 per ct.; silver 30 oz. to the ton.

No. 2. Argentiferous lead ore, (very different from the former,) lead 70 per ct.; silver 150 oz. to the ton.

No. 3. Argentiferous lead ore; lead 70 per ct.; silver 200 oz. to the ton.

No. 4. Zinc ore—sulphuret of zinc, free from metallic alloys and therefore very valuable—yields from 40 to 45 per ct. of metal.

Assays have been made of the ores of these mines by celebrated scientific men in various parts of the Union. They all agree in pronouncing this mineral to be the richest argentiferous ore ever found in the Union; and some of their tests show *six per cent.* of silver in many of the specimens.

Although from the discovery of the first vein of mineral by Mr. Moulton, up to the time of the organization of the company under the charter, these mines have been worked under many disadvantages, yet they have yielded a greater profit than could have been anticipated. The enterprise was commenced by a young man, a stranger in this community, without much other capital than his own energy. With the means afforded by the mines, and by the assistance of several capitalists of this city, he has been enabled, gradually to surmount all difficulties, and ultimately, to establish the enterprise upon such a basis as to give the public all the assurance they can wish of its rapid progress, and the speedy realization of immense profits. On the 12th November last, these mines, together with a large amount of mineral lands in various sections of the State, were transferred to the South-western and Arkansas Mining Company, having a capital stock sufficient to carry on the work in the most advantageous mode. This company have secured the services of T. F. Moss, Esq., a graduate of the celebrated Mining school at Freiburg, who, as Mining Engineer, and General Superintendent, now has control of the mines of this associa-

tion, and is specially charged with the entire direction of the works. At his suggestion, a "working shaft" is being sunk, for the purpose of draining the mines, and increasing the facilities for raising the mineral. As soon as this shaft has reached the required depth, and the pumps are put in operation, the raising of the ore will be recommenced and continued without interruption.

We have the fullest confidence in the success of this enterprise. It will not only prove a source of immense wealth to the company; but it must exert a very beneficial influence upon the prospects of our State. We have an abundance of mineral localities within our territory; and we only need one practical illustration of the profits of mining, to give an impetus to the enterprise of our people in every portion of the State. We predict that not many years will pass by before the annual shipment of minerals from our State will press hard upon the amount of our agricultural exports.

MENTAL IMPROVEMENT.

BY W. L. N.

The intellectual faculties of man, like his physical nature, require both food and exercise to stimulate their growth, and develop their powers. Facts are the pabulum of the mind; but without mental effort and the exercise of reason, they afford but little nutriment. An individual may possess the wealth, and command the services of a nation, but he cannot enjoy health and strength without physical exertion. This is a condition of his nature, which cannot be performed by proxy. And, so likewise, one may be endowed with a mind possessing all the attributes of genius, and have access to all facts necessary to improvement, and yet, if he does not exercise his mental faculties, they will, in time, become enfeebled, and finally, in a great degree, be incapable of performing their functions. Nature does not permit her gifts to remain always with those who will not use them; but, in due time, re-claim sthe talent bestowed upon him who neglects to improve it. Individuals are generally unconscious of their own intellectual powers; and in most cases are indebted to accident and circumstances, for the improvement of their mental faculties.

But there are few who might not in an age like this, and, especially, in a country like ours, advance in mental improvement far beyond this passive condition. Unlike the premative ages when means for mental development were limited, facilities for improvement are now abundant. The very "fountains of the great deep" of mind seem to be broken up, and nature herself forced to yield her choicest secrets to the mandates of science. The philosopher appears to be drawing large and fresh draughts from the perennial springs of inspiration, and the consequence is, that science is asserting her supremacy over the

errors of tradition, and removing the rubbish which the ignorance and superstition of ages have thrown over truth. Ancient fastenings are cut loose, circumscribed and intolerant views discarded, and we find ourselves in the broad, unfathomed ocean of mind, with literary institutions, and more enlightened teachers for our ministers, *excelsior* for our motto, and emulation the propelling power. By these instrumentalities the diffusion and increase of knowledge have been greatly accelerated, discovery succeeds discovery, and improvement follows improvement in rapid succession.

In an age like this, where is the individual that can supinely fold his arms and remain an indifferent spectator of the achievements of human intellect? If any such there be let them awake from their stupor and comprehend the important fact, that intelligence controls this world of man, and, that degradation is the inevitable consequence of ignorance. Rely upon no contingency through which to escape the common fate of the ignorant, but make a voluntary and vigorous effort to develop your own mental faculties; and the earlier and the more assiduously this effort is made, the more effectual it will be in accomplishing the desired result. In youth the mind is free from care—free to act—and is more susceptible of impression. It is the silver prelude to a golden era. Hence the importance of improving these propitious moments. It is then that a desire for acquiring knowledge may be most successfully cultivated; and when this desire grows strong and becomes permanent no ordinary difficulty, or allurement, can turn the ardent student aside *from his purposes, and obstacles* are but incentives to increased exertion.

It is to the labors of such minds that the age is indebted for the discoveries, and improvements, which have added so much to human comfort. And yet, how few have thus devoted themselves to science! If such a small band could accomplish so much, in fifty years, to ameliorate the social condition, what mighty results may we not expect to flow from a universal diffusion of knowledge.

Youth of America, would you be actors and co-laborers in the great work of ameliorating the condition of the human family, then, cultivate your mental faculties and study to improve your moral nature—duty to yourselves, to society, and to the Creator demand this at your hands.

Will you neglect these claims for the enjoyment of pleasures which gratify for the time, but finally, terminate in injury to yourself and grievance to the community? Surely not. Would you enjoy elevation of character, and prove useful to your fellow man, resolve to select, so far as may be in your power, the study of such useful subjects as are most congenial to your nature. The mind, so far as it is known is capable of expansion and improvement without limit. It still retains this quality of original greatness which distinguishes man from every other form of earthly existences. It is this characteristic, more than any other, which reveals the immortality of its nature: unlike mans corporeal frame, which attains a certain stature that is transmitted from generation to generation without enlargement, the mind, spiritual, and may we not say eternal, in its nature, is capable of indefinite expansion; and with proper culture will continue to expand from age to age till the end of time.

PERIODICAL LITERATURE.

Although periodical literature receives a fair degree of encouragement from the people of this country, yet, the great advantages which it affords of acquiring information at little cost, of money and labor, are not generally appreciated nor understood.

In general, monthly publications are limited in their design to some one or more particular departments of useful knowledge; and if the Editor labors with fidelity he will be able, with but a moderate degree of talent, to afford his patrons more information upon the subjects which come within the range of his plan, than they can obtain from other sources without the use of an extensive library, and the application of more time than those engaged in the ordinary pursuits of life can spare.

Few individuals engaged in other than literary pursuits possess time, or means, to collect facts and examine thoroughly the many interesting and important subjects that are continually presented for consideration; this is the business and duty of the authors of periodicals: and herein consists the great economy of these publications. Suppose one should desire to keep himself advised of the state of our domestic and foreign commerce, and also, of the commerce of all nations; where else would he find this information in a form so convenient, satisfactory and cheap as in *Hunt's Merchants Magazine*? Should he desire to combine with commercial information a knowledge of the great interests of the south—her agriculture manufactures and internal improvements—where else could he find so much information in so small a compass, and at so cheap a rate, as in *DeBow's Commercial Review*. We mean no disparagement to other periodicals: but we have mentioned these because they embrace subjects important to be known and understood by all classes.

In the agricultural department, we have many valuable publications. Of these, every farmer should take one, at least. And here, we beg to recommend the *Valley Farmer*, published in our own city, as highly worthy of patronage. The first number of the 2d volume of this work appears in an improved form and contains much valuable matter. The *Cultivator*, published at Albany, New York, is another excellent work. The *Pictorial Cultivator* which accompanied the January number as a Christmas present to subscribers, is executed with much taste, and is alone worth the price of the work.

The *American Agriculturist*, published in the city of New York is also a work of merit and worthy of encouragement.

In the department of general literature, there are also in our country a number of periodicals highly worthy of patronage—among these may be mentioned the *Southern Quarterly Review*—and the *Southern Literary Messenger* both works of no ordinary merit.